Delta
Environmental
Consultants, Inc.

2770 Cleveland Avenue
St. Paul, MN 55113
612/639-9449
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January 21, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Blvd. HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta No. A097-130

Summary of Work Performed during December 1997 and January 1998

- Conducted site visits on December 8, 1997 and January 14, 1998 to collect system operation data and adjust skimmers as needed. Ground water level and product thickness measurements were collected from all wells in December 1997, except those present on Iowa Interstate Railroad property.
- Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data and dispose of recovered product and water.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through January 14, 1998 is presented in the attached table and graph.

Problems Encountered and Adjustments

The product tank was pumped out on December 4, 1997. Approximately 30 gallons of product were recovered from December 4 to 12, 1997. Little or no product was recovered from December 12, 1997 to January 14, 1998, when the product tank was pumped out again. Product recovery rates decreased as product thicknesses were reduced in the skimming wells. The table below shows the reduction in product thickness in the 7 wells where skimmer pumps operated from December 8, 1997 to January 14, 1998.

	Product Thickness (ft) - 12/8/97	Product Thickness (ft) - 1/14/98
GM-22D	0.59	0.00
GM-23D	0.14	0.04
GM-24S	0.95	0.59
GM-31	0.92	0.00
GM-32	0.20	0.00
RW-5	0.20	0.35
RW-6	0.13	0.00

Apparently, the system is recovering water after reducing product thicknesses because the skimmer heads are not sufficiently hydrophobic. However, the 2-inch diameter wells may also be impeding free travel of skimmer heads. The tidal skimmer pumps (with 40 inches of skimmer travel track designed for use at sites with large fluctuations of ground water levels) are long and flexible. The product hose may be getting jammed in the bottom of the well or the rigid plastic guide rod that the product hose attaches to may be getting jammed as it travels through the lower disk of the skimmer head track, which would prevent free travel of the skimmer heads.

To rule out the possibility of impeded skimmer head travel in the 2-inch wells, only bottom skimming pumps, which do not have hose extending below the skimmer head, were restarted in 2-inch wells on January 15, 1998. All of the tidal skimmers, except those installed in the 6-inch diameter pilot test wells, were disconnected from the air supply. If the bottom skimmer pumps and 4-inch tidals in the pilot test wells continue to recover water, alternatives for reducing water treatment costs will be evaluated.

Well construction defects (non-flush fittings, damaged screens, or bends in the well casings) at wells MW-D1, MW-G3, and MW-J2 have prevented pump installation. In addition, the bottom skimmer pump in well MW-C3 is jammed and cannot be adjusted or removed. The product thicknesses in these 4 wells is significant and shown below.

	Product Thickness (ft) - 12/8/97	Product Thickness (ft) - 1/14/98
MW-D1	0.60	0.65
MW-G3	0.07	0.51
MW-J2	2.82	1.91
MW-C3	1.03	could not measure

We have contacted a local drilling company to evaluate the well construction and make recommendations for modifications, or well abandonment and replacement, so that product can be recovered.

The only other wells to show product thicknesses greater than 1 foot during December 1997 and January 1998 are GM-24D (1.6 to 1.8 feet of product) and GM-25D (1.6 to 1.9 feet of product). The quick-connect fittings to the air and product lines were disconnected at these wells in November 1997 because of reduced product thicknesses. Ice and the location of the fittings in the 6-inch above-ground casings has prevented reconnection of the fittings. We have authorized Enviromark to modify the well heads as needed to reconnect these pumps to recover product.

Work Schedule for January and February 1998

- Authorize Enviromark reconnect and start GM-24D and GM-25D.
- Authorize a local drilling company to evaluate the well construction of MW-D1, MW-G3, MW-J2, and MW-C3.
- Evaluate alternatives to reduce water treatment costs. Manifest and properly dispose of product and water in the recovery tank as needed.
- Continue monthly site visits by Delta to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (612) 697-5186.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Paul Carter
Project Manager

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

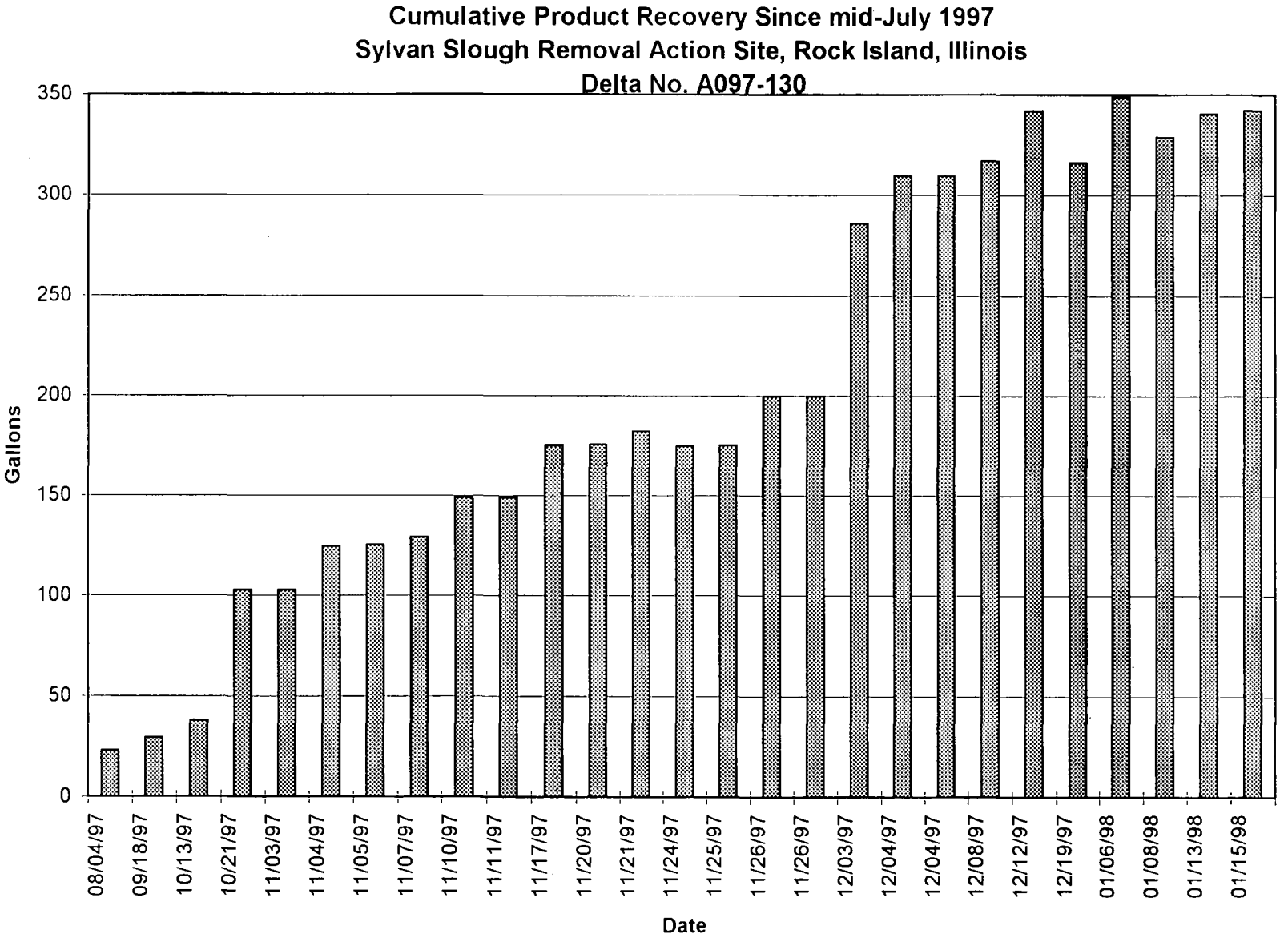
Historical Product Recovery (Pilot and Phase I Skimmer System)
Sylvan Slough Removal Action Site, Rock Island, ILI

Tank Dimensions/Volume Calculation (depth meas. from top of hori. cylindrical tank)

Diameter of tank = 4.00 feet
Length of tank = 10.67 feet
Volume of tank = 1003 gallons

Date	Depth to Product (ft)	Depth to Water (ft)	Product Tx (ft)	Total Fluid Volume (gal)	Water Volume (gal)	Free Product Volume (gal)	Cumulative Product (gal)	%Product	Notes
08/04/97						23	23.0		Tank pumped out.
09/18/97	3.81	3.86	0.05	17.4	11.0	6.3	29.3	37	
10/13/97	3.83	4.00	0.17	14.7	0.0	14.7	37.7	100	
10/21/97	1.95	2.20	0.25	517.3	437.6	79.7	102.7	15	All pumps turned off.
11/03/97	4.00	4.00	0.00	0.0	0.0	0.0	102.7		Product/water removed - pumps restarted.
11/04/97	3.08	3.17	0.08	173.3	151.3	22.0	124.7	13	15 of 18 pumps operating.
11/05/97	3.00	3.08	0.08	196.0	173.3	22.7	125.4	12	
11/07/97	1.75	1.83	0.08	580.9	554.4	26.4	129.1	5	
11/10/97	0.25	0.50	0.25	976.5	930.3	46.2	148.9	5	System auto. stopped by tank float.
11/11/97	4.00	4.00	0.00	0.0	0.0	0.0	148.9		Tank pumped out and system restarted.
11/17/97	2.29	2.38	0.08	408.6	382.3	26.2	175.1	6	
11/20/97	2.08	2.17	0.08	474.7	448.2	26.5	175.5	6	
11/21/97	1.98	2.08	0.10	508.0	474.7	33.2	182.2	7	
11/24/97	1.50	1.58	0.08	659.2	633.3	25.9	174.8	4	Apparent tank product volume decrease
11/25/97	1.65	1.73	0.08	613.8	587.5	26.3	175.2	4	assumed to be due to measurement error.
11/26/97	1.33	1.50	0.17	710.1	659.2	50.9	199.8	7	
11/26/97	4.00	4.00	0.00	0.0	0.0	0.0	199.8		Tank pumped out and system restarted.
12/03/97	0.67	1.00	0.33	892.8	806.6	86.2	286.0	10	
12/04/97	0.00	0.67	0.67	1002.6	892.8	109.8	309.6	11	river stage 5.03'
12/04/97	3.92	3.92	0.00	5.1	5.1	0.0	309.6		Tank pumped out and system restarted.
12/08/97	3.42	3.45	0.03	89.8	82.2	7.5	317.2	8	
12/12/97	2.40	2.50	0.10	375.8	343.4	32.4	342.0	9	
12/19/97	2.15	2.17	0.02	454.8	448.2	6.6	316.2	1	river stage 5.23'
01/06/98	1.63	1.75	0.13	620.3	580.9	39.4	349.0	6	
01/08/98	1.21	1.28	0.07	745.6	726.2	19.4	329.0	3	
01/13/98	0.67	0.79	0.13	892.8	862.0	30.8	340.4	3	
01/15/98	3.92	3.94	0.02	5.1	3.3	1.8	342.2	35	tank pumped out, only pilot wells and bottom skimmers on
01/20/98	3.29	3.30	0.01	121.3	118.9	2.4	342.8	2	

Eleven (11) of the 14 Phase I recovery (skimmer) wells were started on 10/18/97 - 3 wells not started due to obstructions.
The Pilot recovery wells (RW-4/5/6/7) were not restarted on 10/18/97 because of no significant product.
Recovered 65 gallons from 11 pumps in 3 days (10/18 to 10/21/97), or 1.97 gallons/pump/day.
All pumps left off at end of 10/21/97 site visit until pumps could be reset by Enviromark.
Pumps pulled from wells without product on 11/11/97.
All skimmer cycles reduced 11/18/97 to reduce pumping volume.
All skimmers checked and adjusted 11/25/97.
All skimmers checked and adjusted 12/08/97.


Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130
Gallons
350
300
250
200
150
100
50
0
08/04/97
09/18/97
10/13/97
10/21/97
11/03/97
11/04/97
11/05/97
11/07/97
11/10/97
11/11/97
11/17/97
11/20/97
11/21/97
11/24/97
11/25/97
11/26/97
11/26/97
12/03/97
12/04/97
12/04/97
12/08/97
12/12/97
12/19/97
01/06/98
01/08/98
01/13/98
01/15/98
Date

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Delta
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February 23, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Blvd. HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta No. A097-130

Summary of Work Performed during January and February 1998

- Conducted site visits on January 14 and February 10, 1998 to collect system operation data and adjust skimmers as needed. Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data and dispose of recovered product and water.
- Requested that wells with blockages be inspected by a local well driller.
- Requested a bid from a local contractor to repair the air compressor air dryer.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through February 17, 1998 is presented in the attached table and graph. The slight decreases in cumulative product recovered is due to measurement error.

Problems Encountered and Adjustments

The product tank was pumped out on January 14, 1997. Bottom skimming pumps were restarted in 2-inch wells on January 15, 1998. Although the tidal skimming pump cannot be installed at the optimal depth in well J2 due to blockage at 20 feet, the pump has continued to operate during December 1997 and January and February 1998. All of the other tidal skimmers, except those installed in the 6-inch diameter pilot test wells, were disconnected from the air supply in January 1998.

Approximately 10 gallons of product were recovered from January 14 to February 17, 1998. Product recovery rates have decreased as product thicknesses have been reduced in the skimming wells. The attached table that lists the skimming wells shows the reduction in product thickness in wells where skimmer pumps were or are operating. The tidal skimmers in 6-inch pilot test wells RW-4, RW-6, and RW-7 were turned off during the February 1998 site visit because of little or no product. The continued water recovery from January to February 1998 appears to be due in part to insufficiently hydrophobic skimmer heads. The air lines to pumps in wells GM-24D and GM-25D were reconnected without well head modification. However, as at GM-29S, a significant reduction in product thickness was not observed at these wells from January to February 1998 suggesting that the skimmer heads may have been jammed in these wells.

Well construction defects (non-flush fittings, damaged screens, or bends in the well casings) at wells MW-D1, MW-G3, MW-J2, and MW-C3 were noted in the last status report. In addition to these wells, blockage at 10 feet at MW-C2 has prevented pump installation at this well. We are soliciting competitive bids to evaluate whether or not well abandonment, replacement, and product recovery from these wells is necessary and cost effective. It may be that product can be collected from most of these wells as water levels rise in the spring.

Work Schedule for February and March 1998

- Solicit bids from local drilling companies to abandon and replace wells.
- Evaluate alternatives to reduce water treatment costs. Manifest and properly dispose of product and water in the recovery tank as needed.
- Continue monthly site visits by Delta to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (612) 697-5186.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Paul Carter
Project Manager

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

Historical Product Recovery (Pilot and Phase I Skimmer System)
Sylvan Slough Removal Action Site, Rock Island, ILI

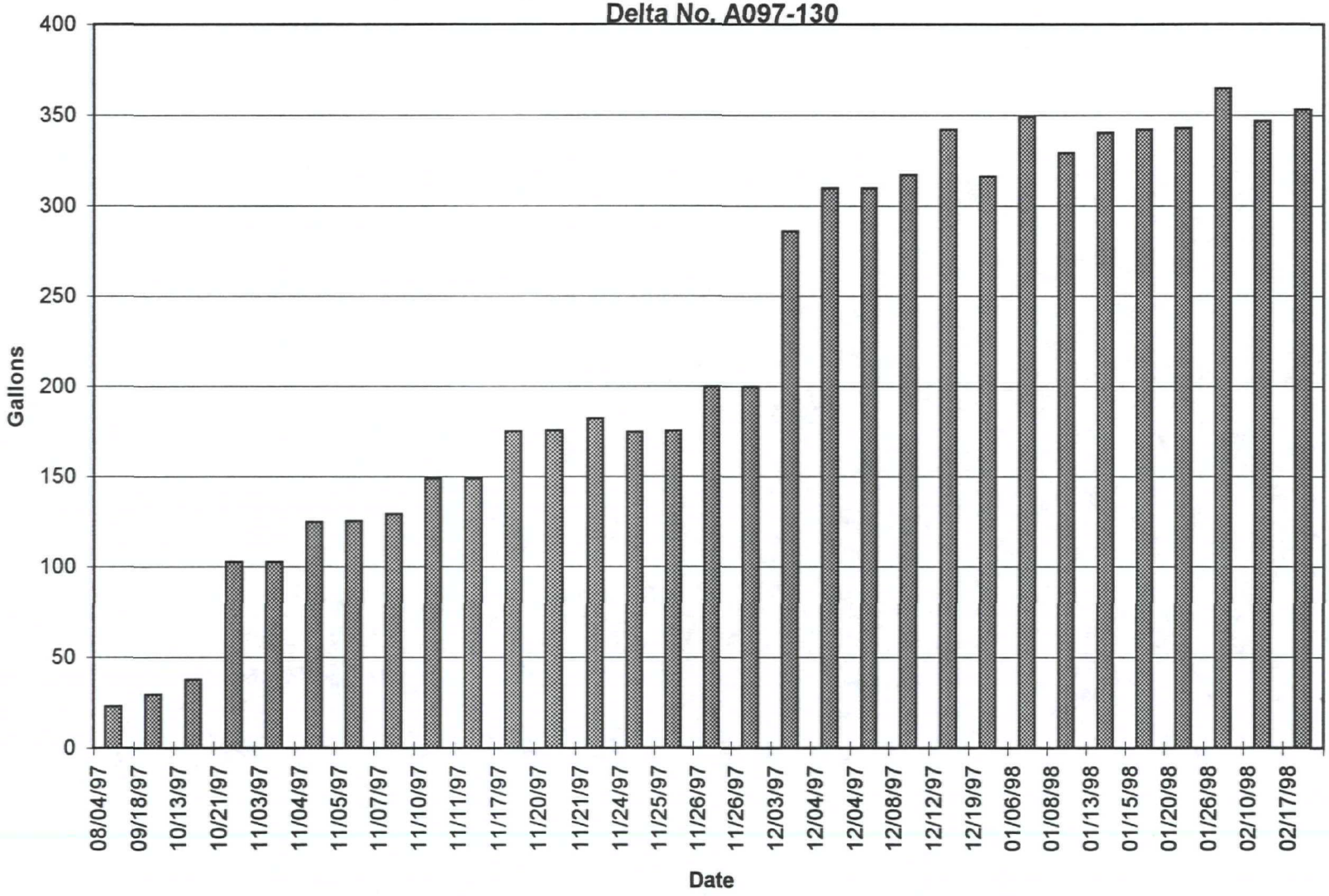
Tank Dimensions/Volume Calculation (depth meas. from top of hori. cylindrical tank)

Diameter of tank =	4.00	feet
Length of tank =	10.67	feet
Volume of tank =	1003	gallons

Date	Depth to Product (ft)	Depth to Water (ft)	Product Tx (ft)	Total Fluid Volume (gal)	Water Volume (gal)	Free Product Volume (gal)	Cumulative Product (gal)	%Product	Notes
08/04/97						23	23.0		Tank pumped out.
09/18/97	3.81	3.86	0.05	17.4	11.0	6.3	29.3	37	
10/13/97	3.83	4.00	0.17	14.7	0.0	14.7	37.7	100	
10/21/97	1.95	2.20	0.25	517.3	437.6	79.7	102.7	15	All pumps turned off.
11/03/97	4.00	4.00	0.00	0.0	0.0	0.0	102.7		Product/water removed - pumps restarted.
11/04/97	3.08	3.17	0.08	173.3	151.3	22.0	124.7	13	15 of 18 pumps operating.
11/05/97	3.00	3.08	0.08	196.0	173.3	22.7	125.4	12	
11/07/97	1.75	1.83	0.08	580.9	554.4	26.4	129.1	5	
11/10/97	0.25	0.50	0.25	976.5	930.3	46.2	148.9	5	System auto. stopped by tank float.
11/11/97	4.00	4.00	0.00	0.0	0.0	0.0	148.9		Tank pumped out and system restarted.
11/17/97	2.29	2.38	0.08	408.6	382.3	26.2	175.1	6	
11/20/97	2.08	2.17	0.08	474.7	448.2	26.5	175.5	6	
11/21/97	1.98	2.08	0.10	508.0	474.7	33.2	182.2	7	
11/24/97	1.50	1.58	0.08	659.2	633.3	25.9	174.8	4	Apparent tank product volume decrease
11/25/97	1.65	1.73	0.08	613.8	587.5	26.3	175.2	4	assumed to be due to measurement error.
11/26/97	1.33	1.50	0.17	710.1	659.2	50.9	199.8	7	
11/26/97	4.00	4.00	0.00	0.0	0.0	0.0	199.8		Tank pumped out and system restarted.
12/03/97	0.67	1.00	0.33	892.8	806.6	86.2	286.0	10	
12/04/97	0.00	0.67	0.67	1002.6	892.8	109.8	309.6	11	river stage 5.03'
12/04/97	3.92	3.92	0.00	5.1	5.1	0.0	309.6		Tank pumped out and system restarted.
12/08/97	3.42	3.45	0.03	89.8	82.2	7.5	317.2	8	
12/12/97	2.40	2.50	0.10	375.8	343.4	32.4	342.0	9	
12/19/97	2.15	2.17	0.02	454.8	448.2	6.6	316.2	1	river stage 5.23'
01/06/98	1.63	1.75	0.13	620.3	580.9	39.4	349.0	6	
01/08/98	1.21	1.28	0.07	745.6	726.2	19.4	329.0	3	
01/13/98	0.67	0.79	0.13	892.8	862.0	30.8	340.4	3	
01/15/98	3.92	3.94	0.02	5.1	3.3	1.8	342.2	35	tank pumped out, only pilot wells and bottom skimmers on
01/20/98	3.29	3.30	0.01	120.3	117.8	2.4	342.8	2	
01/26/98	2.75	2.83	0.08	267.7	243.3	24.4	364.8	9	
02/10/98	1.65	1.67	0.02	612.4	606.2	6.3	346.7	1	4 bottom skimmers, 3 tidals running.
02/17/98	0.42	0.48	0.06	947.2	934.7	12.6	353.0	1	

Eleven (11) of the 14 Phase I recovery (skimmer) wells were started on 10/18/97 - 3 wells not started due to obstructions.
The Pilot recovery wells (RW-4/5/6/7) were not restarted on 10/18/97 because of no significant product.
Recovered 65 gallons from 11 pumps in 3 days (10/18 to 10/21/97), or 1.97 gallons/pump/day.
All pumps left off at end of 10/21/97 site visit until pumps could be reset by Enviromark.
Pumps pulled from wells without product on 11/11/97.
All skimmer cycles reduced 11/18/97 to reduce pumping volume.
All skimmers checked and adjusted 11/25/97.
All skimmers checked and adjusted 12/08/97.

Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130



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Delta Environmental Consultants
Proj. No. A097-130

SKIMMIMG WELLS

Sylvan Slough- BNSF/Navistar
Rock Island, IL

		12/8/97						1/14/98							2/10/98						
Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well Depth from TOC (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D	T	23.68	23.09	0.59	547.97	6.77	GM22D		22.77	-	0.00	548.36	7.16	29.93	GM22D		23.34	-	0.00	547.79	6.59
GM23D	T	22.96	22.82	0.14	548.05	12.03	GM23D	B	22.52	22.48	0.04	548.41	12.39	34.87	GM23D	T	23.07	23.04	0.03	547.85	11.83
GM24S	B	21.30	20.35	0.95	549.82	1.63	GM24S	B	21.03	20.44	0.59	549.78	1.59	22.10	GM24S	B	20.48	20.31	0.17	549.96	1.77
GM24D		24.65	23.01	1.64	548.10	5.88	GM24D		24.46	22.67	1.79	548.42	6.21	29.10	GM24D	B	24.79	23.19	1.60	547.92	5.71
GM25D		25.61	24.04	1.57	547.64	5.34	GM25D		25.63	23.73	1.90	547.91	5.61	29.58	GM25D	B	25.51	23.87	1.64	547.81	5.51
GM28S		18.82	-	0.00	551.89	3.01	GM28S		18.92	-	0.00	551.79	2.91	21.83	GM28S		18.69	-	0.00	552.02	3.14
GM28D		22.54	-	0.00	548.33	7.44	GM28D		22.30	22.28	0.02	548.59	7.70	29.98	GM28D		22.80	22.79	0.01	548.08	7.19
GM29S		19.79	19.45	0.34	551.74	2.60	GM29S	B	19.84	19.39	0.45	551.78	2.64	22.09	GM29S	B	19.67	19.23	0.44	551.95	2.81
GM31	T	23.92	23.00	0.92	548.18	10.13	GM31		22.69	-	0.00	548.60	10.55	33.24	GM31		23.27	-	0.00	548.02	9.97
GM32	T	23.20	23.00	0.20	548.00	11.98	GM32	B	22.65	-	0.00	548.37	12.36	35.01	GM32		23.24	-	0.00	547.78	11.77
RW4		23.95	-	0.00	544.45	6.25	RW4	T	22.58	-	0.00	545.82	7.62	30.20	RW4		23.23	-	0.00	545.17	6.97
RW5	T	23.00	22.80	0.20	545.68	7.17	RW5	T	22.75	22.40	0.35	546.06	7.56	30.00	RW5	T	23.07	23.03	0.04	545.47	6.96
RW6	T	23.07	22.94	0.13	545.44	6.24	RW6	T	22.56	-	0.00	545.84	6.64	29.20	RW6		23.16	-	0.00	545.24	6.04
RW7		22.89	22.88	0.01	548.07	10.17	RW7	T	22.55	-	0.00	548.40	10.50	33.05	RW7		23.09	-	0.00	547.86	9.96
C2 *(3)		20.64	20.19	0.45	550.93	0.85	C2 *(3)		20.70	20.34	0.36	550.80	0.72	21.10	C2 *(3)		20.62	20.23	0.39	550.90	0.82
C3 *(1)		18.88	17.85	1.03	549.82	2.62	C3 *(1)		skimmer stuck in well					20.60	C3 *(1)		skimmer stuck in well				
D1 *(3)		20.18	19.58	0.60	551.80	0.95	D1 *(3)		20.28	19.63	0.65	551.74	0.89	20.60	D1 *(3)		20.47	19.47	1.00	551.86	1.01
G3 *(2)		23.03	22.96	0.07	548.39	10.09	G3 *(2)		23.10	22.59	0.51	548.71	10.41	33.06	G3 *(2)		23.53	23.13	0.40	548.18	9.88
RWI1		22.79	-	0.00	548.05	11.52	RWI1		22.47	-	0.00	548.37	11.84	34.31	RWI1		22.98	-	0.00	547.86	11.33
J2 *(2)	T	20.70	17.88	2.82	548.26	10.16	J2 *(2)	T	19.58	17.67	1.91	548.58	10.48	28.39	J2 *(2)	T	19.23	18.33	0.90	548.05	9.95

= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

* Well depths measured in field from top of new 6-inch above-ground casing, fluid in well corrected for new well depth.

*(1): bottom skimmer jammed in well, cannot remove

*(2): skimmer won't descend past ~ 20 feet - bend or blockage

*(3): skimmer won't descend past ~10 feet - bend or blockage

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June 15, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Summary of Work Performed during May/June 1998

- Conducted a site visit on May 10, through May 13, 1998 to over drill wells C2, C3, D1, G3, and J2 with 4-inch recovery wells.
- Conducted a site visit on May 18, 1998, to re-install skimmer pumps.
- Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data.
- Conducted a site visit on June 8 and 9, 1998, to evaluate system operation.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through May 1998 is presented in the attached table and graph. Approximately 406 gallons of product has been recovered.

Problems Encountered and Adjustments

The attached "Skimming Wells" table presents a monthly summary of water levels, product thickness, and the status and type of skimming pump installed in the wells. Ground water levels decreased 2 to 7 feet from April to May 1998 in response to decreasing river stage. During this period of decreasing water levels, product thickness increased in wells GM-24D, GM-28S, GM-31, RW-5, and RW-6. Product thickness decreased in wells GM-25D, J-2, and G-3.

A sheen was observed on the river during the visit and appeared to be May leaching from the edge of the river bank. The location of the sheen is illustrated on the attached Figure. A sheen has been observed in this area in the past. In response to the sheen a boom was placed around it to contain and absorb it.

Work Schedule for June 1998

- Continue monthly site visits to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (612) 697-5229.

Sincerely,

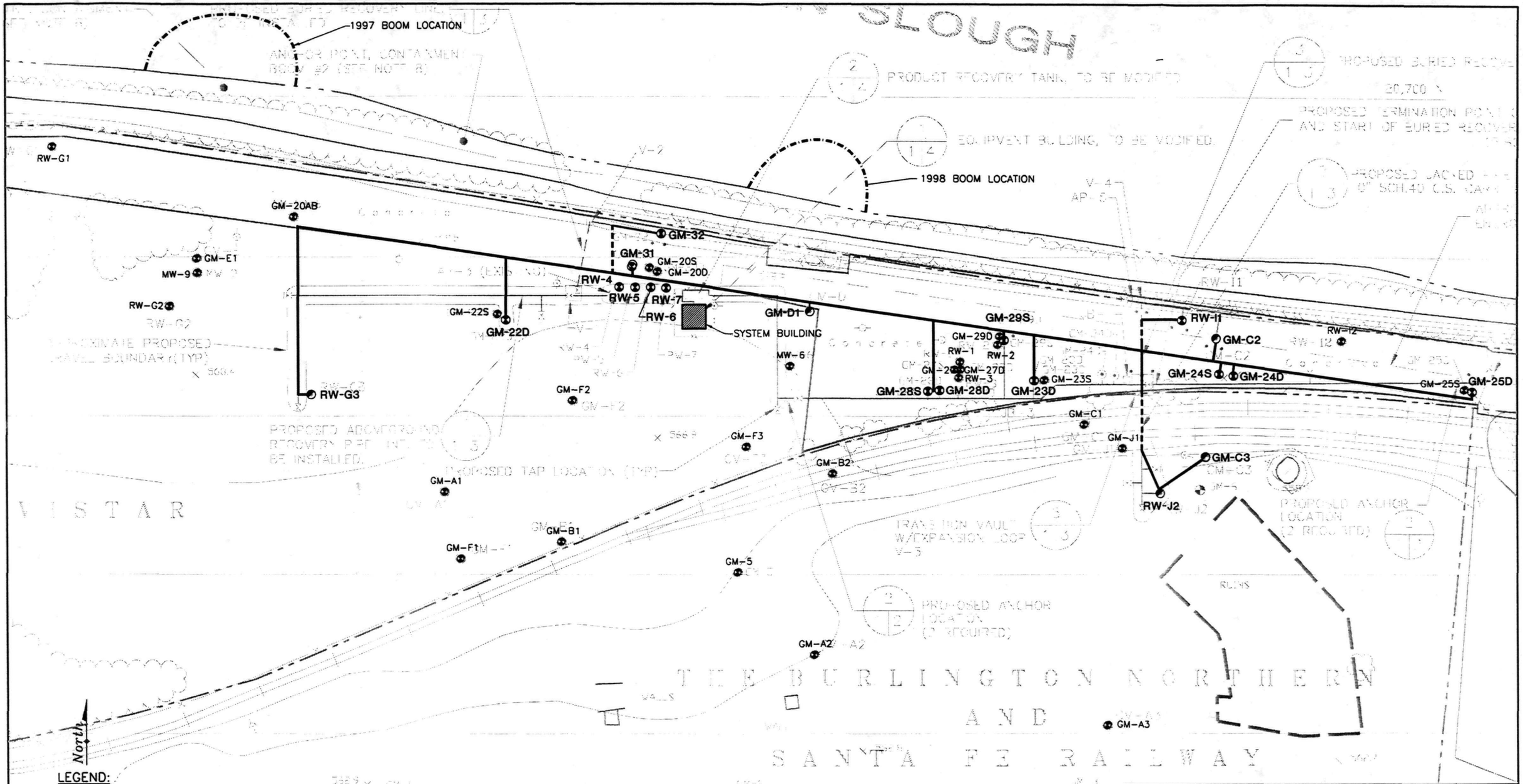
DELTA ENVIRONMENTAL CONSULTANTS, INC.

Gary Schroeher
Project Manager

GS/gdo

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611



LEGEND:

- WATERS EDGE
- MW-1 — MONITORING/RECOVERY WELL
- GM-22D — 2" SKIMMING MONITORING/RECOVERY WELL
- RW-G3 — 4" SKIMMING MONITORING/RECOVERY WELL
- ABOVE GRADE SYSTEM PIPING ALIGNMENT
- BELOW GRADE SYSTEM PIPING ALIGNMENT

0 60
SCALE IN FEET

FIGURE 1
SKIMMING WELLS/BOOMS
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY
A097-130	GVP	SJR
DATE	REVIEWED BY	FILE NAME
6/15/98		97130SM

Delta Environmental Consultants, Inc.

Sylvan Slough- BNSF/Navistar
Rock Island, IL

3/18/98

Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D		20.49	20.47	0.02	550.66	9.46
GM23D	T	20.21	20.13	0.08	550.75	14.73
GM24S		18.82	-	0.00	551.47	3.28
GM24D	B	22.80	20.30	2.50	550.70	8.49
GM25D	B	24.50	21.50	3.00	550.01	7.71
GM28S		17.75	-	0.00	552.96	4.08
GM28D	T	20.12	19.95	0.17	550.90	10.01
GM29S	B	18.51	18.36	0.15	552.85	3.71
GM31	EB	21.02	20.39	0.63	550.82	12.77
GM32		20.34	-	0.00	550.68	14.67
RW4		20.14	-	0.00	548.26	10.06
RW5	T	23.41	19.68	3.73	548.35	9.85
RW6	T	20.29	20.13	0.16	548.25	9.05
RW7		20.21	20.20	0.01	550.75	12.85
C2 *(3)		18.67	-	0.00	552.51	2.43
C3 *(1)		skimmer stuck in well				
D1 *(3)		18.55	-	0.00	552.90	2.05
G3 *(2)	T	21.10	20.21	0.89	551.04	12.74
RWI1		20.11	-	0.00	550.73	14.20
J2 *(2)	T	19.51	15.07	4.44	550.87	12.77

4/8/98

Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well Depth from TOC (ft)
GM22D		13.74	-	0.00	557.39	16.19	29.93
GM23D		13.12	-	0.00	557.77	21.75	34.87
GM24S		15.42	-	0.00	554.87	6.68	22.10
GM24D	B	13.67	13.62	0.05	557.68	15.47	29.10
GM25D	B	16.89	14.59	2.30	557.00	14.70	29.58
GM28S		15.59	-	0.00	555.12	6.24	21.83
GM28D		13.31	-	0.00	557.56	16.67	29.98
GM29S		14.93	-	0.00	556.30	7.16	22.09
GM31		13.65	-	0.00	557.64	19.59	33.24
GM32		13.45	-	0.00	557.57	21.56	35.01
RW4		13.74	-	0.00	554.66	16.46	30.20
RW5		13.40	-	0.00	555.10	16.60	30.00
RW6		13.78	-	0.00	554.62	15.42	29.20
RW7		13.64	-	0.00	557.31	19.41	33.05
C2 *(3)		14.44	-	0.00	556.74	6.66	21.10
C3 *(1)		skimmer stuck in well					20.25
D1 *(3)		16.31	-	0.00	555.14	4.29	20.60
G3 *(2)	T	15.11	14.05	1.06	557.18	18.88	33.06
RWI1		13.12	-	0.00	557.72	21.19	34.31
J2 *(2)	EB	10.70	8.50	2.20	557.72	19.62	28.39

5/18/98

Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D		20.93	-	0.00	550.20	9.00
GM23D		20.93	-	0.00	549.96	13.94
GM24S		17.04	17.03	0.01	553.26	5.07
GM24D	B	25.08	20.68	4.40	550.08	7.87
GM25D	B	22.77	21.65	1.12	550.09	7.79
GM28S	B	16.25	15.25	1.00	555.34	6.46
GM28D		20.36		0.00	550.51	9.62
GM29S		16.48		0.00	554.75	5.61
GM31	EB	21.25	20.93	0.32	550.32	12.27
GM32		21.03		0.00	549.99	13.98
RW4		20.70		0.00	547.70	9.50
RW5	T	20.95	20.70	0.25	547.77	9.27
RW6	T	20.95	20.63	0.32	547.73	8.53
RW7		20.75		0.00	550.20	12.30
C2 *		17.22		0.00	553.96	3.88
C3 *		12.15		0.00	555.30	8.10
D1 *		16.17		0.00	555.28	4.43
G3 *		16.78		0.00	554.58	16.28
RWI1		20.79		0.00	550.05	13.52
J2 *	B	14.47	14.34	0.13	552.13	14.03

*(1): bottom skimmer jammed in well, cannot remove

*(2): skimmer won't descend past ~ 20 feet - bend or blockage

*(3): skimmer won't descend past ~10 feet - bend or blockage

= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

EB= extended bottom skimmer

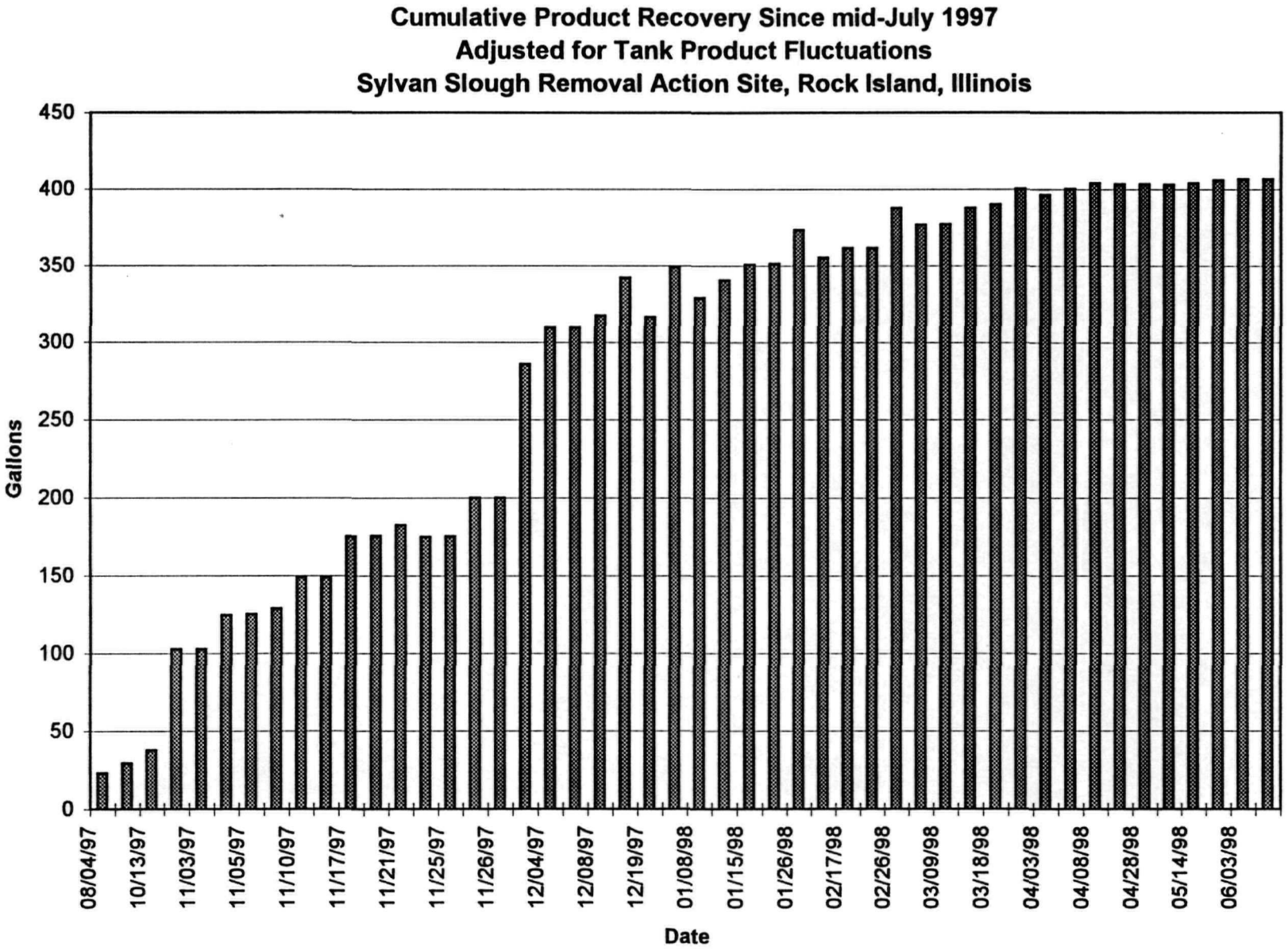
* = new 4" wells installed over old 2" blocked wells

= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

EB= extended bottom skimmer


Cumulative Product Recovery Since mid-July 1997
Adjusted for Tank Product Fluctuations
Sylvan Slough Removal Action Site, Rock Island, Illinois
Gallons
450
400
350
300
250
200
150
100
50
0
08/04/97
10/13/97
11/03/97
11/05/97
11/10/97
11/17/97
11/21/97
11/25/97
11/26/97
12/04/97
12/08/97
12/19/97
01/08/98
01/15/98
01/26/98
02/17/98
02/26/98
03/09/98
03/18/98
04/03/98
04/08/98
04/28/98
05/14/98
06/03/98
Date

prod_graphA

Historical Product Recovery (Pilot and Phase I Skimmer System)
Sylvan Slough Removal Action Site, Rock Island, IL

Tank Dimensions/Volume Calculation (depth meas. from top of horl. cylindrical tank)

Diameter of tank =	4.00	feet
Length of tank =	10.67	feet
Volume of tank =	1003	gallons

Date	Depth to Product (ft)	Depth to Water (ft)	Product Tx (ft)	Total Fluid Volume (gal)	Water Volume (gal)	Free Product Volume (gal)	Cumulative Product (gal)	%Product	Notes
08/04/97						23	23.0		Tank pumped out.
09/18/97	3.81	3.86	0.05	17.4	11.0	6.3	29.3	37	
10/13/97	3.83	4.00	0.17	14.7	0.0	14.7	37.7	100	
10/21/97	1.95	2.20	0.25	517.3	437.6	79.7	102.7	15	All pumps turned off.
11/03/97	4.00	4.00	0.00	0.0	0.0	0.0	102.7		Product/water removed - pumps restarted.
11/04/97	3.08	3.17	0.08	173.3	151.3	22.0	124.7	13	15 of 18 pumps operating.
11/05/97	3.00	3.08	0.08	196.0	173.3	22.7	125.4	12	
11/07/97	1.75	1.83	0.08	580.9	554.4	26.4	129.1	5	
11/10/97	0.25	0.50	0.25	976.5	930.3	46.2	148.9	5	System auto. stopped by tank float.
11/11/97	4.00	4.00	0.00	0.0	0.0	0.0	148.9		Tank pumped out and system restarted.
11/17/97	2.29	2.38	0.08	408.6	382.3	26.2	175.1	6	
11/20/97	2.08	2.17	0.08	474.7	448.2	26.5	175.5	6	
11/21/97	1.98	2.08	0.10	508.0	474.7	33.2	182.2	7	
11/24/97	1.50	1.58	0.08	659.2	633.3	25.9	174.8	4	Apparent tank product volume decrease
11/25/97	1.65	1.73	0.08	613.8	587.5	26.3	175.2	4	assumed to be due to measurement error.
11/26/97	1.33	1.50	0.17	710.1	659.2	50.9	199.8	7	
11/26/97	4.00	4.00	0.00	0.0	0.0	0.0	199.8		Tank pumped out and system restarted.
12/03/97	0.67	1.00	0.33	892.8	806.6	86.2	286.0	10	
12/04/97	0.00	0.67	0.67	1002.6	892.8	109.8	309.6	11	river stage 5.03'
12/04/97	3.92	3.92	0.00	5.1	5.1	0.0	309.6		Tank pumped out and system restarted.
12/08/97	3.42	3.45	0.03	89.8	82.2	7.5	317.2	8	
12/12/97	2.40	2.50	0.10	375.8	343.4	32.4	342.0	9	
12/19/97	2.15	2.17	0.02	454.8	448.2	6.6	316.2	1	river stage 5.23'
01/06/98	1.63	1.75	0.13	620.3	580.9	39.4	349.0	6	
01/08/98	1.21	1.28	0.07	745.6	726.2	19.4	329.0	3	
01/13/98	0.67	0.79	0.13	892.8	862.0	30.8	340.4	3	
01/15/98	3.92	3.94	0.02	5.1	3.3	1.8	350.8	35	tank pumped out, only pilot wells and bottom skimmers on
01/20/98	3.29	3.30	0.01	120.3	117.8	2.4	351.4	2	
01/26/98	2.75	2.83	0.08	267.7	243.3	24.4	373.4	9	
02/10/98	1.65	1.67	0.02	612.4	606.2	6.3	355.3	1	4 bottom skimmers, 3 tidals running.
02/17/98	0.42	0.48	0.06	947.2	934.7	12.6	361.6	1	
02/19/98	4.00	4.00	0.00	0.0	0.0	0.0	361.6		tank pumped out
02/26/98	2.33	2.42	0.08	395.4	369.3	26.1	387.7	7	
03/04/98	1.35	1.40	0.05	705.0	689.9	15.2	376.7	2	river stage up to 10.6'
03/09/98	0.33	0.42	0.08	962.7	947.2	15.5	377.1	2	
03/10/98	4.00	4.00	0.00	0.0	0.0	0.0	387.7		tank pumped out
03/18/98	3.33	3.34	0.01	110.6	108.3	2.4	390.1	2	4 bottom skimmers, 6 tidals running
03/26/98	1.72	1.76	0.04	590.4	577.7	12.7	400.4	2	river stage 8.80'
04/03/98	0.01	0.12	0.11	1002.4	993.9	8.6	396.3	1	river stage 12', flood stage
04/03/98	4.00	4.00	0.00	0.0	0.0	0.0	400.4		tank pumped out
04/08/98	3.66	3.68	0.02	41.1	37.6	3.5	403.9	9	
04/17/98	1.55	1.56	0.01	643.7	640.6	3.1	403.5	0	
04/28/98	1.14	1.15	0.01	767.1	764.2	2.9	403.3	0	
05/07/98	0.83	0.84	0.01	852.2	849.6	2.6	403.0	0	system shut down for well overdrilling
05/14/98	4.00	4.00	0.00	0.0	0.0	0.0	403.9		tank pumped out, system still down
05/21/98	3.46	3.47	0.01	80.9	78.7	2.2	406.1	3	system restarted 5/18/98, booms reset today
06/03/98	3.10	3.11	0.01	168.9	166.2	2.7	406.5	2	
06/08/98	3.07	3.08	0.01	176.9	174.2	2.7	406.6	2	

Eleven (11) of the 14 Phase I recovery (skimmer) wells were started on 10/18/97 - 3 wells not started due to obstructions.
The Pilot recovery wells (RW-4/5/6/7) were not restarted on 10/18/97 because of no significant product.
Recovered 65 gallons from 11 pumps in 3 days (10/18 to 10/21/97), or 1.97 gallons/pump/day.
All pumps left off at end of 10/21/97 site visit until pumps could be reset by Enviromark.
Pumps pulled from wells without product on 11/11/97.
All skimmer cycles reduced 11/18/97 to reduce pumping volume.
All skimmers checked and adjusted 11/25/97.
All skimmers checked and adjusted 12/08/97.
All skimmers checked and adjusted 1/14/98.
All skimmers checked and adjusted 2/10/98.
All skimmer cycles reduced 2/10/98 to 60 sec. to reduce pumping volume.
Pumps deactivated in wells without product on 2/10/98.
All skimmer selective screens inspected, cleaned, and calibrated 3/18/98.
Pilot test well air control system not receiving enough air from compressor, not cycling, 3/18/98
New 4" wells installed over existing skimming wells with blockages 5/11 - 5/15 1998

Delta
Environmental
Consultants, Inc.

2770 Cleveland Avenue
St. Paul, MN 55113
612/639-9449
FAX: 612/639-9473

May 5, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta No. A097-130

Summary of Work Performed during April 1998

- Conducted site visits on April 8, 1998 to collect system operation data and adjust skimmers as needed. Contacted the system by modem to monitor system operation. Collected quarterly ground water level and product thickness measurements from all accessible wells.
- Coordinated additional site visits by Enviromark to collect system operation data and dispose of recovered product and water.
- Selected local well driller to perform well replacement task, scheduled for May 11, 1998

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through April 1998 is presented in the attached table and graph. The periodic, slight decreases in cumulative product recovered is due to measurement error.

Problems Encountered and Adjustments

The attached "Skimming Wells" table presents a three month summary of water levels, product thicknesses, and the status and type of skimming pump installed in the wells. Ground water levels increased 2 to 7 feet from March to April 1998 in response to increasing river stage. During this period of increasing water levels, product thicknesses decreased in the shallow wells (GM-24S, GM-29S, C2, and D1). The skimmer pump in GM-24S was turned off in March because of this (no oil in March), while the skimmer pump in GM-29S was allowed to operate to recover remaining oil (0.15 feet). Wells with blockage (C2 and D1) that have prevented pump installation showed product thicknesses reduced to non-detectable.

Product thicknesses also decreased in the deep wells during the same time period.

Work Schedule for May 1998

- Replace wells C2, C3, D1, G3, and J2 with 4 inch recovery wells.
- Continue to evaluate alternatives for maximizing product recovery.
- Evaluate alternatives to reduce water treatment costs. Manifest and properly dispose of product and water in the recovery tank as needed.
- Continue monthly site visits to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (612) 697-5229.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Gary Schroeher
Project Manager

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

SKIMMIMG WELLS

Sylvan Slough- BNSF/Navistar
Rock Island, IL

		2/10/98						3/18/98							4/8/98						
Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well Depth from TOC (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D		23.34	-	0.00	547.79	6.59	GM22D		20.49	20.47	0.02	550.66	9.46	29.93	GM22D		13.74	-	0.00	557.39	16.19
GM23D	T	23.07	23.04	0.03	547.85	11.83	GM23D	T	20.21	20.13	0.08	550.75	14.73	34.87	GM23D		13.12	-	0.00	557.77	21.75
GM24S	B	20.48	20.31	0.17	549.96	1.77	GM24S		18.82	-	0.00	551.47	3.28	22.10	GM24S		15.42	-	0.00	554.87	6.68
GM24D	B	24.79	23.19	1.60	547.92	5.71	GM24D	B	22.80	20.30	2.50	550.70	8.49	29.10	GM24D	B	13.67	13.62	0.05	557.68	15.47
GM25D	B	25.51	23.87	1.64	547.81	5.51	GM25D	B	24.50	21.50	3.00	550.01	7.71	29.58	GM25D	B	16.89	14.59	2.30	557.00	14.70
GM28S		18.69	-	0.00	552.02	3.14	GM28S		17.75	-	0.00	552.96	4.08	21.83	GM28S		15.59	-	0.00	555.12	6.24
GM28D		22.80	22.79	0.01	548.08	7.19	GM28D	T	20.12	19.95	0.17	550.90	10.01	29.98	GM28D		13.31	-	0.00	557.56	16.67
GM29S	B	19.67	19.23	0.44	551.95	2.81	GM29S	B	18.51	18.36	0.15	552.85	3.71	22.09	GM29S		14.93	-	0.00	556.30	7.16
GM31		23.27	-	0.00	548.02	9.97	GM31	EB	21.02	20.39	0.63	550.82	12.77	33.24	GM31		13.65	-	0.00	557.64	19.59
GM32		23.24	-	0.00	547.78	11.77	GM32		20.34	-	0.00	550.68	14.67	35.01	GM32		13.45	-	0.00	557.57	21.56
RW4		23.23	-	0.00	545.17	6.97	RW4		20.14	-	0.00	548.26	10.06	30.20	RW4		13.74	-	0.00	554.66	16.46
RW5	T	23.07	23.03	0.04	545.47	6.96	RW5	T	23.41	19.68	3.73	548.35	9.85	30.00	RW5		13.40	-	0.00	555.10	16.60
RW6		23.16	-	0.00	545.24	6.04	RW6	T	20.29	20.13	0.16	548.25	9.05	29.20	RW6		13.78	-	0.00	554.62	15.42
RW7		23.09	-	0.00	547.86	9.96	RW7		20.21	20.20	0.01	550.75	12.85	33.05	RW7		13.64	-	0.00	557.31	19.41
C2 *(3)		20.62	20.23	0.39	550.90	0.82	C2 *(3)		18.67	-	0.00	552.51	2.43	21.10	C2 *(3)		14.44	-	0.00	556.74	6.66
C3 *(1)		skimmer stuck in well					C3 *(1)		skimmer stuck in well					20.60	C3 *(1)		skimmer stuck in well				
D1 *(3)		20.47	19.47	1.00	551.86	1.01	D1 *(3)		18.55	-	0.00	552.90	2.05	20.60	D1 *(3)		16.31	-	0.00	555.14	4.29
G3 *(2)		23.53	23.13	0.40	548.18	9.88	G3 *(2)	T	21.10	20.21	0.89	551.04	12.74	33.06	G3 *(2)	T	15.11	14.05	1.06	557.18	18.88
RWI1		22.98	-	0.00	547.86	11.33	RWI1		20.11	-	0.00	550.73	14.20	34.31	RWI1		13.12	-	0.00	557.72	21.19
J2 *(2)	T	19.23	18.33	0.90	548.05	9.95	J2 *(2)	T	19.51	15.07	4.44	550.87	12.77	28.39	J2 *(2)	EB	10.70	8.50	2.20	557.72	19.62

* Well depths measured in field from top of new 6-inch above-ground casing, fluid in well corrected for new well depth.

*(1): bottom skimmer jammed in well, cannot remove

*(2): skimmer won't descend past ~ 20 feet - bend or blockage

*(3): skimmer won't descend past ~10 feet - bend or blockage

= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

EB= extended bottom skimmer

Historical Product Recovery (Pilot and Phase I Skimmer System)
Sylvan Slough Removal Action Site, Rock Island, ILI

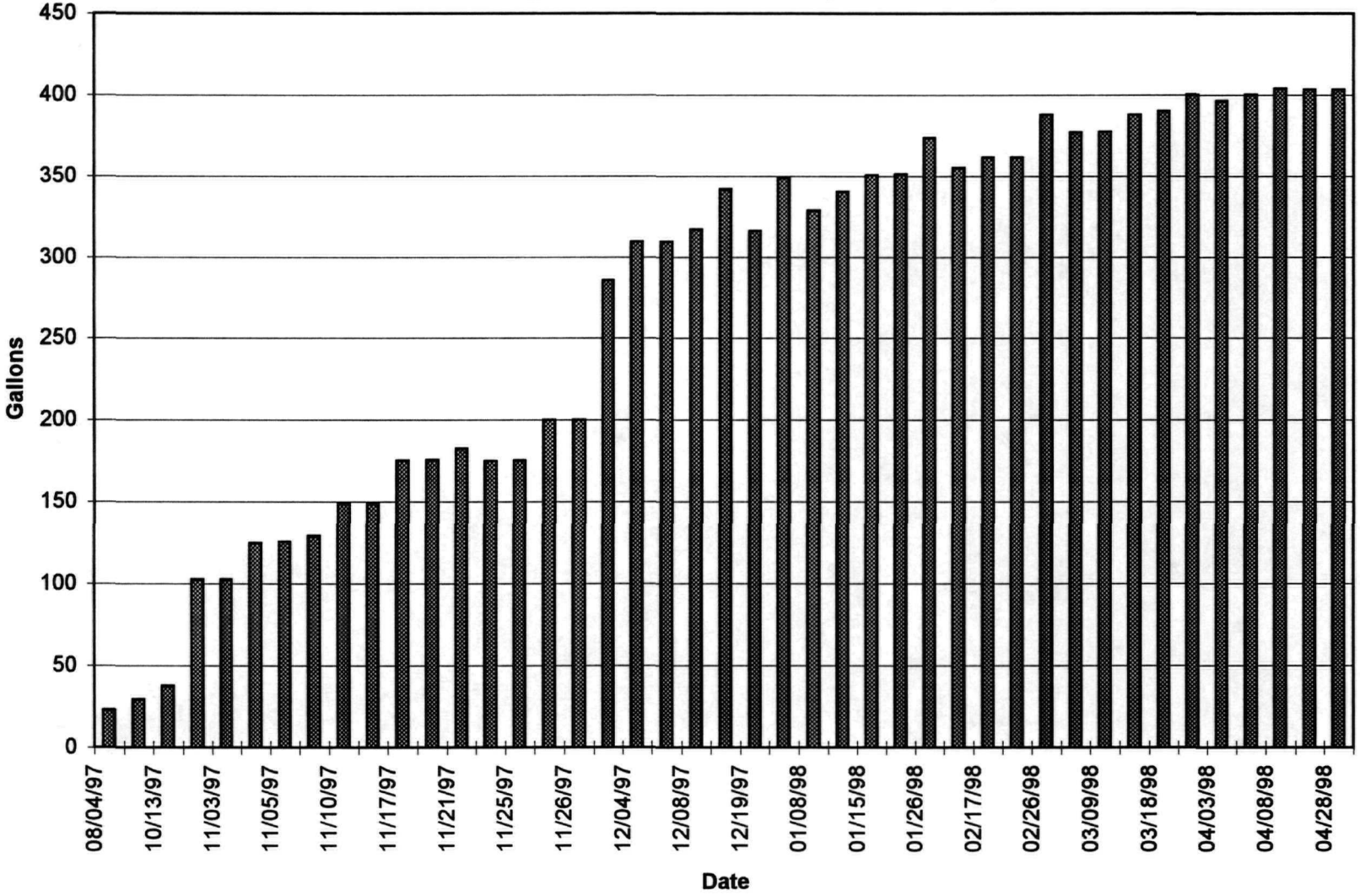
Tank Dimensions/Volume Calculation (depth meas. from top of hori. cylindrical tank)

Diameter of tank =	4.00	feet
Length of tank =	10.67	feet
Volume of tank =	1003	gallons

Date	Depth to Product (ft)	Depth to Water (ft)	Product Tx (ft)	Total Fluid Volume (gal)	Water Volume (gal)	Free Product Volume (gal)	Cumulative Product (gal)	%Product	Notes
08/04/97						23	23.0		Tank pumped out.
09/18/97	3.81	3.86	0.05	17.4	11.0	6.3	29.3	37	
10/13/97	3.83	4.00	0.17	14.7	0.0	14.7	37.7	100	
10/21/97	1.95	2.20	0.25	517.3	437.6	79.7	102.7	15	All pumps turned off.
11/03/97	4.00	4.00	0.00	0.0	0.0	0.0	102.7		Product/water removed - pumps restarted.
11/04/97	3.08	3.17	0.08	173.3	151.3	22.0	124.7	13	15 of 18 pumps operating.
11/05/97	3.00	3.08	0.08	196.0	173.3	22.7	125.4	12	
11/07/97	1.75	1.83	0.08	580.9	554.4	26.4	129.1	5	
11/10/97	0.25	0.50	0.25	976.5	930.3	46.2	148.9	5	System auto. stopped by tank float.
11/11/97	4.00	4.00	0.00	0.0	0.0	0.0	148.9		Tank pumped out and system restarted.
11/17/97	2.29	2.38	0.08	408.6	382.3	26.2	175.1	6	
11/20/97	2.08	2.17	0.08	474.7	448.2	26.5	175.5	6	
11/21/97	1.98	2.08	0.10	508.0	474.7	33.2	182.2	7	
11/24/97	1.50	1.58	0.08	659.2	633.3	25.9	174.8	4	Apparent tank product volume decrease
11/25/97	1.65	1.73	0.08	613.8	587.5	26.3	175.2	4	assumed to be due to measurement error.
11/26/97	1.33	1.50	0.17	710.1	659.2	50.9	199.8	7	
11/26/97	4.00	4.00	0.00	0.0	0.0	0.0	199.8		Tank pumped out and system restarted.
12/03/97	0.67	1.00	0.33	892.8	806.6	86.2	286.0	10	
12/04/97	0.00	0.67	0.67	1002.6	892.8	109.8	309.6	11	river stage 5.03'
12/04/97	3.92	3.92	0.00	5.1	5.1	0.0	309.6		Tank pumped out and system restarted.
12/08/97	3.42	3.45	0.03	89.8	82.2	7.5	317.2	8	
12/12/97	2.40	2.50	0.10	375.8	343.4	32.4	342.0	9	
12/19/97	2.15	2.17	0.02	454.8	448.2	6.6	316.2	1	river stage 5.23'
01/06/98	1.63	1.75	0.13	620.3	580.9	39.4	349.0	6	
01/08/98	1.21	1.28	0.07	745.6	726.2	19.4	329.0	3	
01/13/98	0.67	0.79	0.13	892.8	862.0	30.8	340.4	3	
01/15/98	3.92	3.94	0.02	5.1	3.3	1.8	350.8	35	tank pumped out, only pilot wells and bottom skimmers on
01/20/98	3.29	3.30	0.01	120.3	117.8	2.4	351.4	2	
01/26/98	2.75	2.83	0.08	267.7	243.3	24.4	373.4	9	
02/10/98	1.65	1.67	0.02	612.4	606.2	6.3	355.3	1	4 bottom skimmers, 3 tidals running.
02/17/98	0.42	0.48	0.06	947.2	934.7	12.6	361.6	1	
02/19/98	4.00	4.00	0.00	0.0	0.0	0.0	361.6		tank pumped out
02/26/98	2.33	2.42	0.08	395.4	369.3	26.1	387.7	7	
03/04/98	1.35	1.40	0.05	705.0	689.9	15.2	376.7	2	river stage up to 10.6'
03/09/98	0.33	0.42	0.08	962.7	947.2	15.5	377.1	2	
03/10/98	4.00	4.00	0.00	0.0	0.0	0.0	387.7		tank pumped out
03/18/98	3.33	3.34	0.01	110.6	108.3	2.4	390.1	2	4 bottom skimmers, 6 tidals running
03/26/98	1.72	1.76	0.04	590.4	577.7	12.7	400.4	2	river stage 8.80'
04/03/98	0.01	0.12	0.11	1002.4	993.9	8.6	396.3	1	river stage 12', flood stage
04/03/98	4.00	4.00	0.00	0.0	0.0	0.0	400.4		tank pumped out
04/08/98	3.66	3.68	0.02	41.1	37.6	3.5	403.9	9	
04/17/98	1.55	1.56	0.01	643.7	640.6	3.1	403.5	0	
04/28/98	1.14	1.15	0.01	767.1	764.2	2.9	403.3	0	

Eleven (11) of the 14 Phase I recovery (skimmer) wells were started on 10/18/97 - 3 wells not started due to obstructions.
The Pilot recovery wells (RW-4/5/6/7) were not restarted on 10/18/97 because of no significant product.
Recovered 65 gallons from 11 pumps in 3 days (10/18 to 10/21/97), or 1.97 gallons/pump/day.
All pumps left off at end of 10/21/97 site visit until pumps could be reset by Enviromark.
Pumps pulled from wells without product on 11/11/97.
All skimmer cycles reduced 11/18/97 to reduce pumping volume.
All skimmers checked and adjusted 11/25/97.
All skimmers checked and adjusted 12/08/97.
All skimmers checked and adjusted 1/14/98.
All skimmers checked and adjusted 2/10/98.
All skimmer cycles reduced 2/10/98 to 60 sec. to reduce pumping volume.
Pumps deactivated in wells without product on 2/10/98.
All skimmer selective screens inspected, cleaned, and calibrated 3/18/98.
Pilot test well air control system not receiving enough air from compressor, not cycling, 3/18/98

Cumulative Product Recovery Since mid-July 1997
Adjusted for Tank Product Fluctuations
Sylvan Slough Removal Action Site, Rock Island, Illinois



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Delta
Environmental
Consultants, Inc.

2770 Cleveland Avenue
St. Paul, MN 55113
612/639-9449
FAX: 612/639-9473

July 21, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Summary of Work Performed during June/July 1998

- Conducted a site visit on July 14, 1998 to evaluate system operation.
- Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data.
- Conducted a site visit on June 8 and 9, 1998, to evaluate system operation.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through July 1998 is presented in the attached table and graph. Approximately 4 gallons of product has been recovered.

Problems Encountered and Adjustments

The attached "Skimming Wells" table presents a monthly summary of water levels, product thickness, and the status and type of skimming pump installed in the wells. Ground water levels increased .2 to 3.6 feet from June 8 to July 14, 1998 in response to an increasing river stage, due to heavy rains. During the June 8, 1998 visit product skimmers were left operating in wells GM-24S, GM-24D, GM-28D, RW-5, RW-7 and J-2. During the July visit product was not present in GM-24S, GM-28D and RW-7 indicating that the skimmers most likely removed the product. Skimmers were turned off in these wells. During this time product increased in GM-24D, GM-25D, GM-31, RW-5, RW-6 and C-3. Skimmers were activated in GM-25D, GM-31, RW-5, RW-6 and C-3.

The product observed leaching from the river bank during the May and June visits was still present in July. In response to the sheen the boom remains placed around it to contain and absorb it.

Work Schedule for July/August 1998

- Delta is also reviewing product thickness and presence, increasing and decreasing water elevations in the site monitoring wells and evaluating this data to determine if there are any ways that the existing system's operation can be maximized to increase product recovery and reduce water accumulation in the recovery tank.

- Continue monthly site visits to collect system operation and groundwater monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (612) 697-5229.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

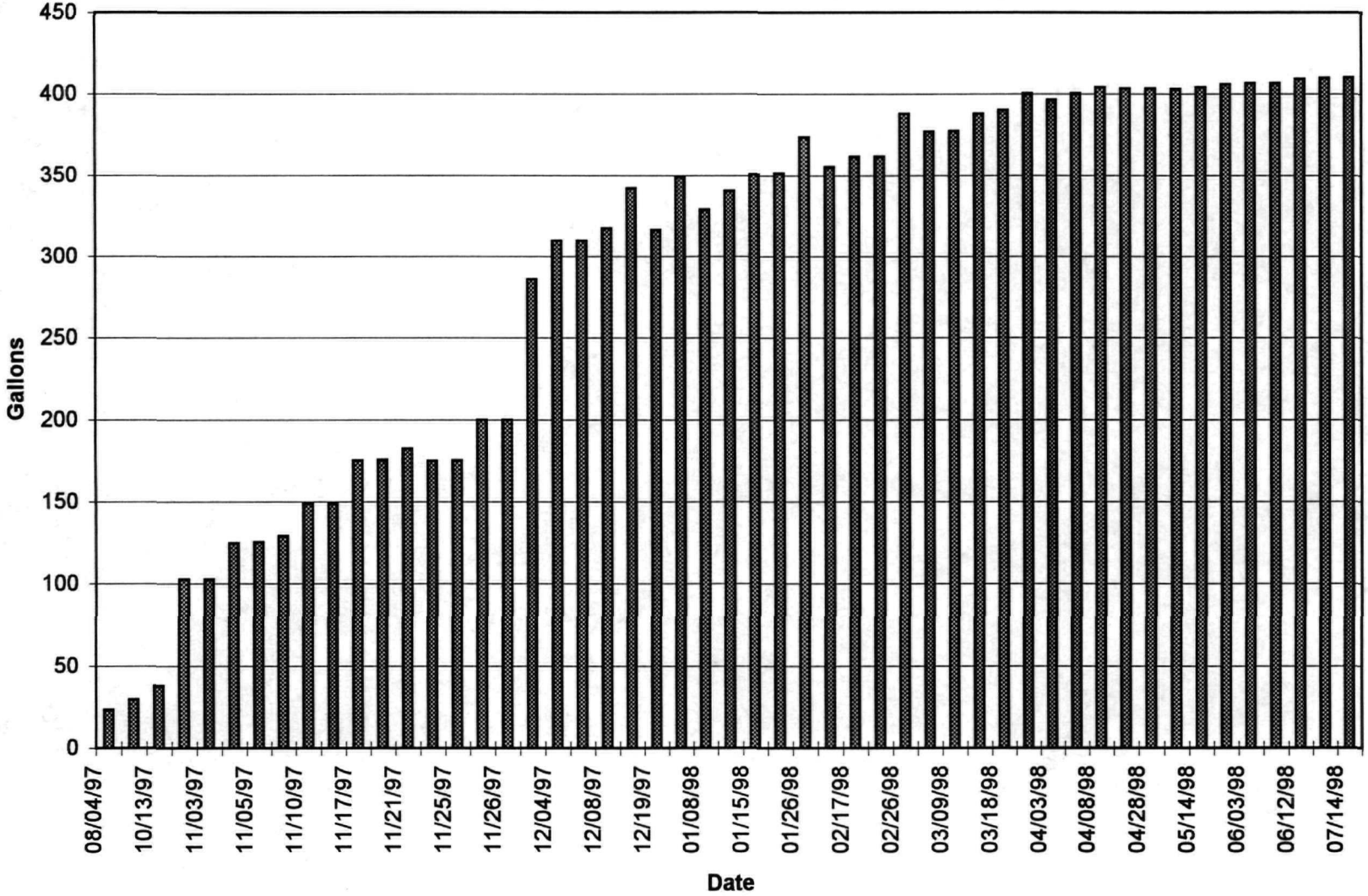
Gary Schroeher
Project Manager

GS/mlz

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

Cumulative Product Recovery Since mid-July 1997
Adjusted for Tank Product Fluctuations
Sylvan Slough Removal Action Site, Rock Island, Illinois



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Delta
Environmental
Consultants, Inc.

2770 Cleveland Avenue
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612/639-9449
FAX: 612/639-9473

August 18, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Summary of Work Performed during July/August 1998

- Conducted a site visit on August 11, 1998, to evaluate system operation.
- Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through July 1998 is shown on the attached graph. Approximately 10 gallons of product has been recovered during July 1998.

Problems Encountered and Adjustments

The attached "Skimming Wells" table presents a monthly summary of water levels, product thickness, and the status and type of skimming pump installed in the wells. Ground water levels have decreased. Product collection appears to increase during decreasing or stable water elevations. During the August 1998 visit product skimmers were left operating in wells GM-24S, GM-24D, GM-25D, GM28S, GM-28D, GM-31, RW-5, RW-6, C-3, and J-2.

The product observed leaching from the river bank during the May and June visits was absent by the August 11 visit.

Work Schedule for August/September 1998

- Continue monthly site visits to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (651) 697-5229.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Gina Overacker

for Gary Schroeher
Project Manager

GS/gdo

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

Sylvan Slough- BNSF/Navistar
Rock Island, IL

SKIMMIMG WELLS

Delta Environmental Consultants
Proj. No. A097-130

6/8/98							7/14/98								8/11/98						
Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well Depth from TOC (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D		21.66		0.00	549.47	8.27	GM22D		18.10		0.00	553.03	11.83	29.93	GM22D		22.58		0.00	548.55	7.35
GM23D		21.56		0.00	549.30	13.28	GM23D		17.92		0.00	552.94	16.92	34.84	GM23D		22.42		0.00	548.44	12.42
GM24S	B	18.10	17.96	0.14	552.31	4.12	GM24S		16.01		0.00	554.28	6.09	22.10	GM24S	B	19.20	18.65	0.55	551.57	3.38
GM24D	EB	24.90	21.58	3.32	549.32	7.11	GM24D	EB	23.75	17.65	6.10	552.90	10.69	29.10	GM24D	EB	24.90	22.45	2.45	548.55	6.34
GM25D		22.66		0.00	549.22	6.92	GM25D	B	20.55	19.19	1.36	552.52	10.22	29.58	GM25D	B	25.30	22.30	3.00	549.21	6.91
GM28S		16.31		0.00	554.42	5.54	GM28S		15.21		0.00	555.52	6.64	21.85	GM28S	T	17.67	16.86	0.81	553.77	4.89
GM28D	B	21.13	21.11	0.02	549.73	8.84	GM28D		17.61		0.00	553.23	12.34	29.95	GM28D	T	22.40	21.98	0.42	548.81	7.92
GM29S		17.23		0.00	553.93	4.79	GM29S		16.08		0.00	555.08	5.94	22.02	GM29S		17.77		0.00	553.39	4.25
GM31		21.67		0.00	549.62	11.57	GM31	B	18.30	18.09	0.21	553.17	15.12	33.24	GM31	T	22.84	22.56	0.28	548.70	10.65
GM32		21.67		0.00	549.35	13.34	GM32		18.10		0.00	552.92	16.91	35.01	GM32		22.58		0.00	548.44	12.43
RW4		21.39		0.00	549.56	11.36	RW4		17.80		0.00	553.15	14.95	32.75	RW4		22.33		0.00	548.62	10.42
RW5	T	21.45	21.40	0.05	549.64	11.14	RW5	T	20.10	17.50	2.60	553.23	14.72	32.55	RW5	T	22.35	22.30	0.05	548.74	10.24
RW6		21.53		0.00	549.42	10.22	RW6	T	18.07	17.92	0.15	553.01	13.81	31.75	RW6	T	22.60	22.30	0.30	548.61	9.41
RW7	T	21.50	21.49	0.01	549.46	11.56	RW7		17.88		0.00	553.07	15.17	33.05	RW7		22.37		0.00	548.58	10.68
C2 *		18.03		0.00	553.15	3.07	C2 *		16.37		0.00	554.81	4.73	21.10	C2 *		18.75		0.00	552.43	2.35
C3 *		13.39		0.00	554.06	6.86	C3 *	B	11.68	11.45	0.23	555.97	8.77	20.25	C3 *	B	14.47	14.34	0.13	553.09	5.89
D1 *		16.67		0.00	554.39	3.54	D1 *		15.61		0.00	555.45	4.60	20.21	D1 *		17.27		0.00	553.79	2.94
G3 *		18.32		0.00	553.04	14.74	G3 *		18.11		0.00	553.25	14.95	33.06	G3 *		21.95		0.00	549.41	11.11
I1		21.44		0.00	549.40	12.87	I1		17.53		0.00	553.31	16.78	34.31	I1		22.57		0.00	548.27	11.74
J2 *	B	15.51	14.34	1.17	552.00	13.90	J2 *	B	12.68	12.61	0.07	553.87	15.77	28.39	J2 *	B	16.99	16.57	0.42	549.87	11.77

* = new 4" wells installed over old 2" blocked wells

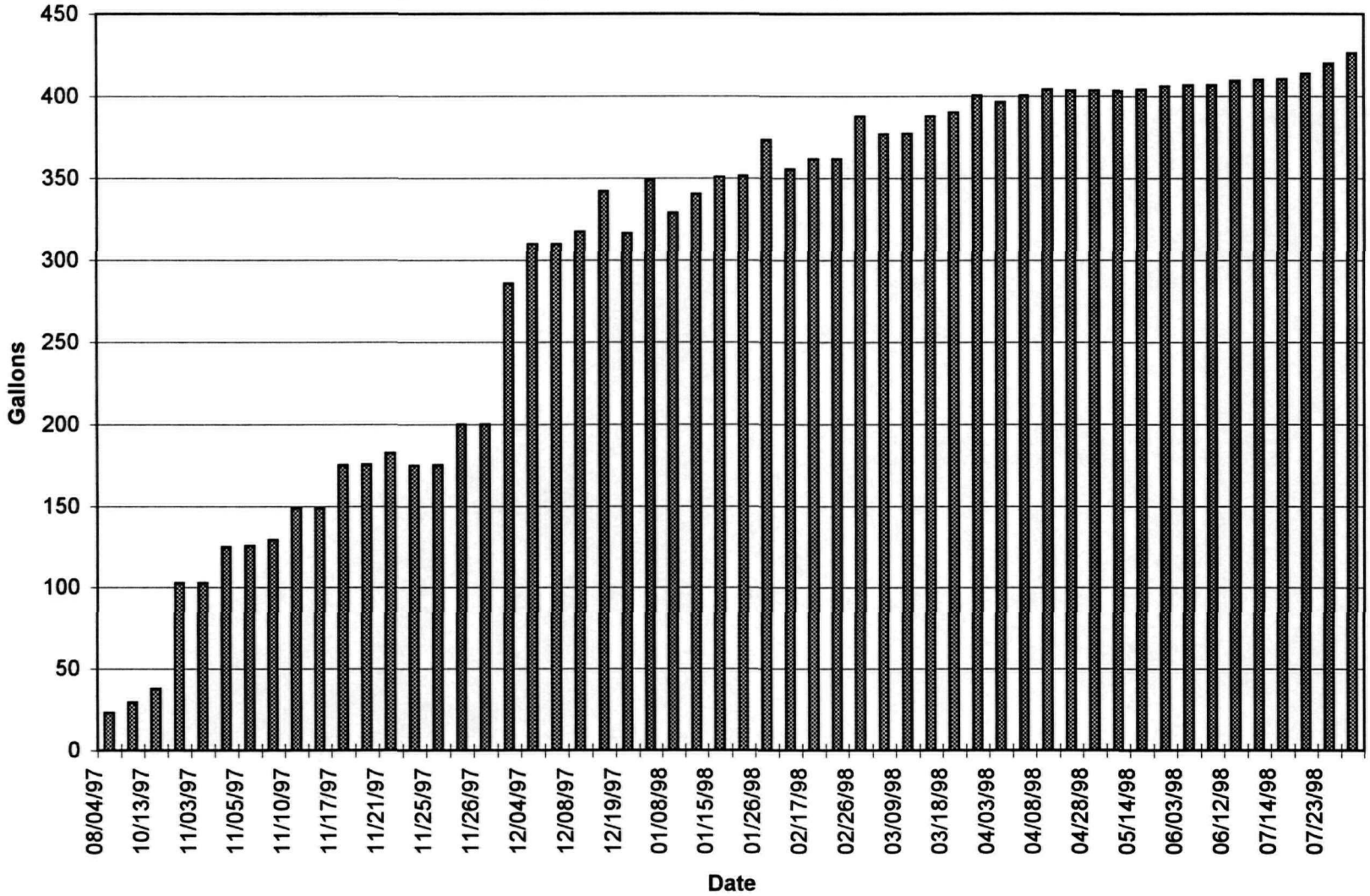
= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

EB= extended bottom skimmer

Cumulative Product Recovery Since mid-July 1997
Adjusted for Tank Product Fluctuations
Sylvan Slough Removal Action Site, Rock Island, Illinois



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Delta
Environmental
Consultants, Inc.

2770 Cleveland Avenue
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612/639-9449
FAX: 612/639-9473

September 17, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Summary of Work Performed during August/September 1998

- Conducted a site visit on August 11, and September 14, 1998, to evaluate system operation.
- Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through September 14, 1998, is shown on the attached graph.

As you can see on the graph, the fuel oil volume increases and decreases. The storage tank is a 1,003-gallon horizontal tank 4 feet in diameter and 10.67 feet long. The storage tank has product floating on water. Product thickness in the storage tank is measured with an interface probe and based on this measurement the product volume is calculated. The product thickness will change depending on its location in the tank and if the tank is not perfectly cylindrical the calculated volume of free product changes.

The storage tank was emptied of oil and water on August 31, 1998. Since September 1, 1998, 6.7 gallons of product has accumulated in the tank.

Problems Encountered and Adjustments

The attached "Skimming Wells" table presents a monthly summary of water levels, product thickness, and the status and type of skimming pump installed in the wells. Ground water levels have decreased and product thickness or presence has increased. Product collection appears to increase during decreasing or stable water elevations. During the August 1998 visit product skimmers were left operating in 10 wells GM-24S, GM-24D, GM-25D, GM-28S, GM-28D, GM-31, RW-5, RW-6, C-3, and J-2. During the September visit 12 wells had product in them including five wells that were "product free" in August. In these wells skimmers were relocated or turned on to collect product.

The product observed leaching from the river bank during the May and June visits was absent by the September 14 visit.

Work Schedule for September/October 1998

- Continue monthly site visits to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (651) 697-5229.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

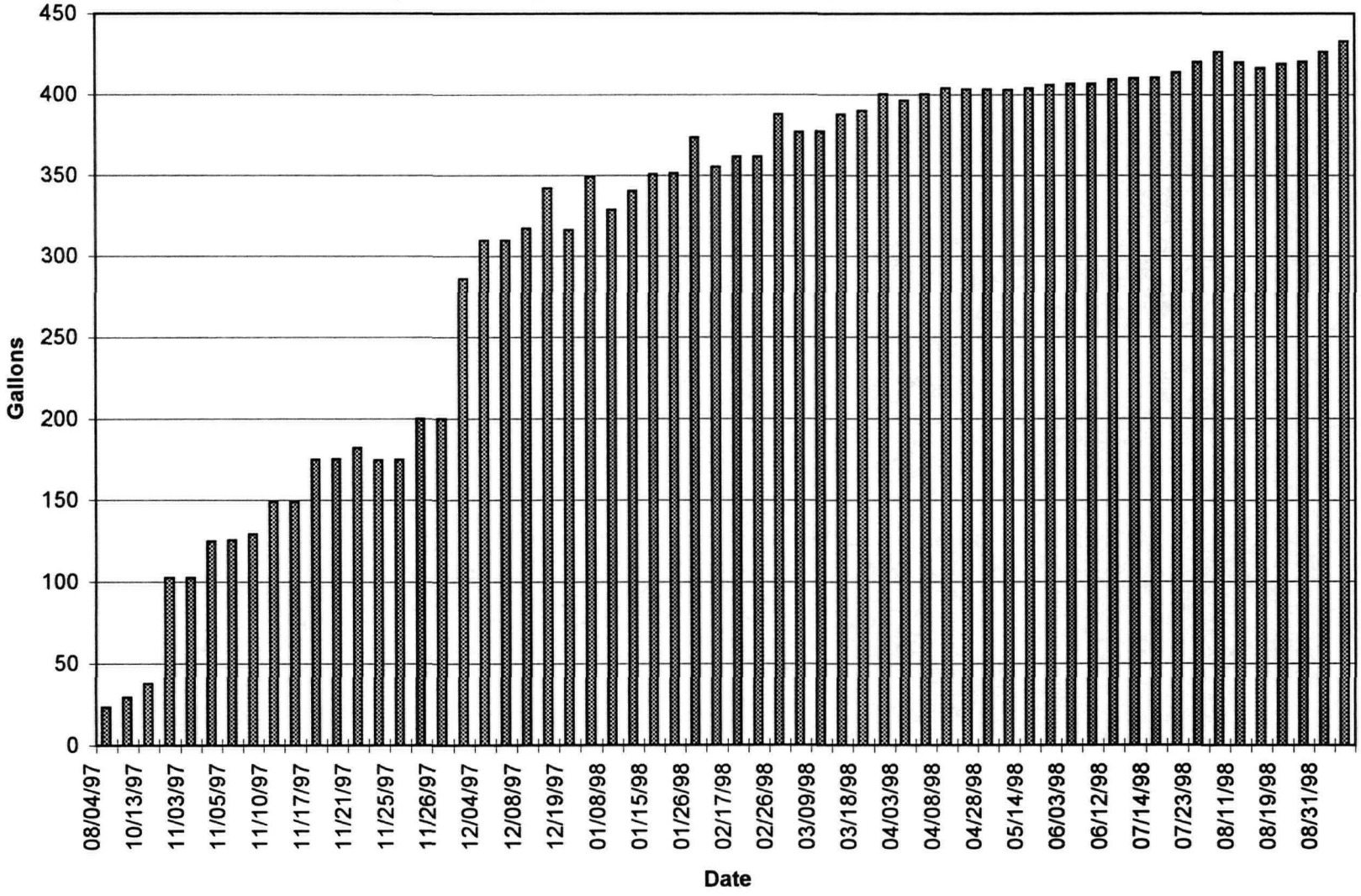
Gary Schroeher
Project Manager

GS/gdo

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

Cumulative Product Recovery Since mid-July 1997
Adjusted for Tank Product Fluctuations
Sylvan Slough Removal Action Site, Rock Island, Illinois



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Sylvan Slough- BNSF/Navistar
Rock Island, IL

SKIMMIMG WELLS

Delta Environmental Consultants
Proj. No. A097-130

7/14/98							8/11/98								9/14/98						
Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well Depth from TOC (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D		18.10		0.00	553.03	11.83	GM22D		22.58		0.00	548.55	7.35	29.93	GM22D	T	24.64	23.29	1.35	547.67	6.47
GM23D		17.92		0.00	552.94	16.92	GM23D		22.42		0.00	548.44	12.42	34.84	GM23D	T	23.29	23.19	0.10	547.66	11.64
GM24S		16.01		0.00	554.28	6.09	GM24S	B	19.20	18.65	0.55	551.57	3.38	22.10	GM24S	B	20.33	19.60	0.73	550.60	2.41
GM24D	EB	23.75	17.65	6.10	552.90	10.69	GM24D	EB	24.90	22.45	2.45	548.55	6.34	29.10	GM24D	B	24.96	23.25	1.71	547.85	5.64
GM25D	B	20.55	19.19	1.36	552.52	10.22	GM25D	B	25.30	22.30	3.00	549.21	6.91	29.58	GM25D	EB	25.11	23.86	1.25	547.86	5.56
GM28S		15.21		0.00	555.52	6.64	GM28S	T	17.67	16.86	0.81	553.77	4.89	21.85	GM28S	T	18.70	17.87	0.83	552.76	3.88
GM28D		17.61		0.00	553.23	12.34	GM28D	T	22.40	21.98	0.42	548.81	7.92	29.95	GM28D		22.85		0.00	547.99	7.10
GM29S		16.08		0.00	555.08	5.94	GM29S		17.77		0.00	553.39	4.25	22.02	GM29S		18.41		0.00	552.75	3.61
GM31	B	18.30	18.09	0.21	553.17	15.12	GM31	T	22.84	22.56	0.28	548.70	10.65	33.24	GM31	T	23.69	23.38	0.31	547.87	9.82
GM32		18.10		0.00	552.92	16.91	GM32		22.58		0.00	548.44	12.43	35.01	GM32	T	23.97	23.35	0.62	547.59	11.58
RW4		17.80		0.00	553.15	14.95	RW4		22.33		0.00	548.62	10.42	32.75	RW4		23.17	23.16	0.01	547.79	9.59
RW5	T	20.10	17.50	2.60	553.23	14.72	RW5	T	22.35	22.30	0.05	548.74	10.24	32.55	RW5		23.13	23.12	0.01	547.93	9.43
RW6	T	18.07	17.92	0.15	553.01	13.81	RW6	T	22.60	22.30	0.30	548.61	9.41	31.75	RW6		23.25		0.00	547.70	8.50
RW7		17.88		0.00	553.07	15.17	RW7		22.37		0.00	548.58	10.68	33.05	RW7	T	23.40	23.30	0.10	547.64	9.74
C2 *		16.37		0.00	554.81	4.73	C2 *		18.75		0.00	552.43	2.35	21.10	C2 *		19.82		0.00	551.36	1.28
C3 *	B	11.68	11.45	0.23	555.97	8.77	C3 *	B	14.47	14.34	0.13	553.09	5.89	20.25	C3 *	B	16.02	15.91	0.11	551.53	4.33
D1 *		15.61		0.00	555.45	4.60	D1 *		17.27		0.00	553.79	2.94	20.21	D1 *		18.15		0.00	552.91	2.06
G3 *		18.11		0.00	553.25	14.95	G3 *		21.95		0.00	549.41	11.11	33.06	G3 *		23.07		0.00	548.29	9.99
I1		17.53		0.00	553.31	16.78	I1		22.57		0.00	548.27	11.74	34.31	I1	T	24.28	22.92	1.36	547.75	11.22
J2 *	B	12.68	12.61	0.07	553.87	15.77	J2 *	B	16.99	16.57	0.42	549.87	11.77	28.39	J2 *	B	17.90	17.61	0.29	548.84	10.74

* = new 4" wells installed over old 2" blocked wells

= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

EB= extended bottom skimmer

SKIMWELS.XLS

Delta
Environmental
Consultants, Inc.

2770 Cleveland Avenue
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U.S.A.
612/639-9449
FAX: 612/639-9473

October 20, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Summary of Work Performed during September/October 1998

- Conducted site visits on September 14, and October 13,1998, to evaluate system operation.
- During the site visit converted two tidal skimmers to extended bottom skimmers to improve product collection.
- Cleaned all the hydrophobic skimmer screens and soaked them in diesel to reduce water infiltration into the screens.
- Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through October 13, 1998, is shown on the attached graph.

The storage tank was emptied of oil and water on August 31, 1998. Since September 1, 1998, 33 gallons of product has accumulated in the tank. Product collection has increased over the last month as the ground water elevations appear to stabilize.

Problems Encountered and Adjustments

The attached "Skimming Wells" table presents a monthly summary of water levels, product thickness, and the status and type of skimming pump installed in the wells. Ground water levels have decreased and product thickness or presence has increased. Product collection appears to increase during decreasing or stable water elevations. During the September visit 12 wells had product in them including five wells that were "product free" in August. In these wells skimmers were relocated or turned on to collect product. In October product was not present in recovery wells GM22D, GM23D, GM25D, and RW7 where skimmers were operating. Product was present in the GM29S for the first time since March 1998.

Work Schedule for September/October 1998

- Continue monthly site visits to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.

If you have any questions, please call me at (651) 697-5229.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

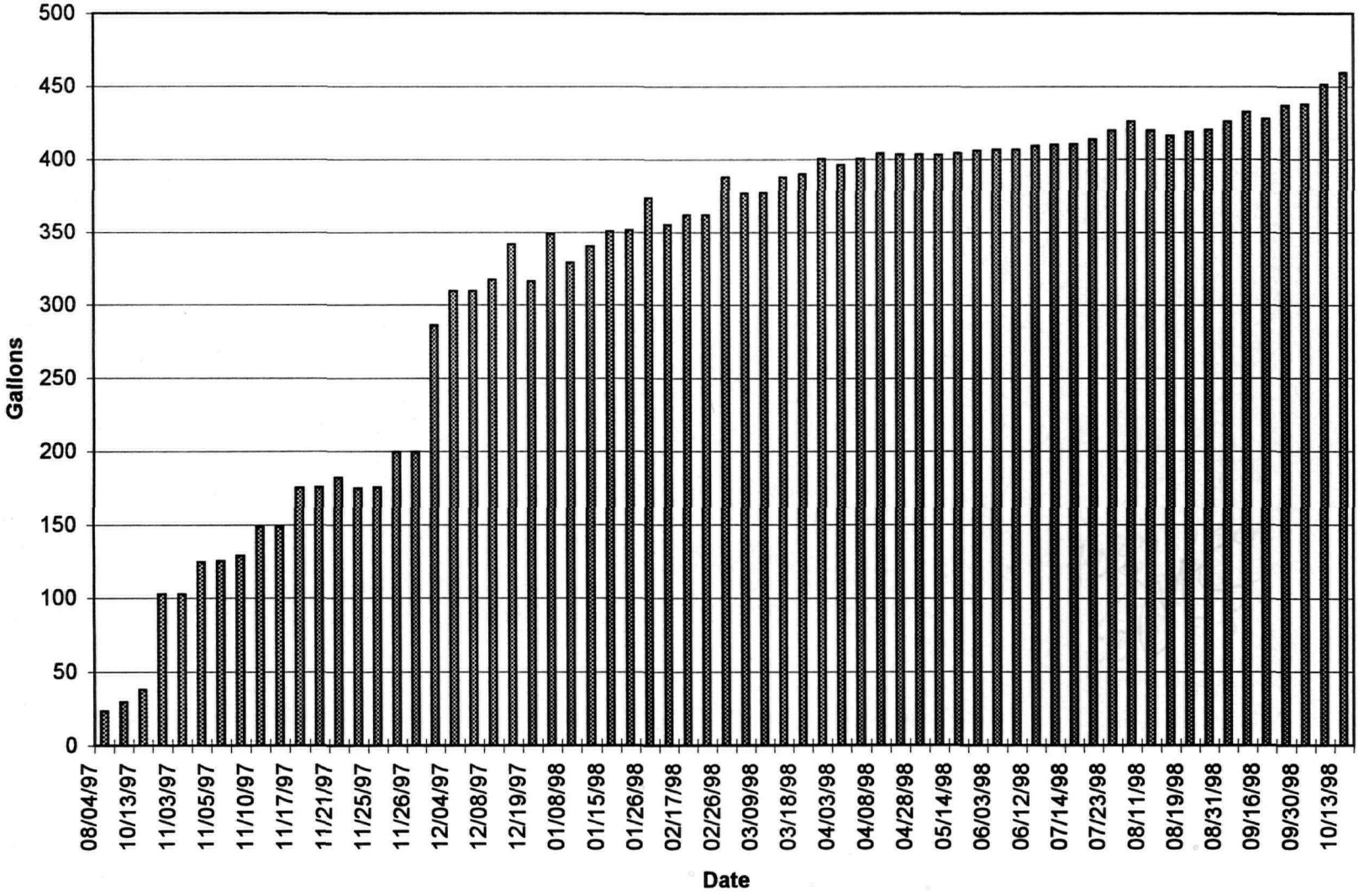
Gary Schroeher
Project Manager

GS/gdo

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

Cumulative Product Recovery Since mid-July 1997
Adjusted for Tank Product Fluctuations
Sylvan Slough Removal Action Site, Rock Island, Illinois



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Sylvan Slough- BNSF/Navistar
Rock Island, IL

SKIMMIMG WELLS

Delta Environmental Consultants
Proj. No. A097-130

		8/11/98							9/14/98								10/13/98						
Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well Depth from TOC (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D		22.58		0.00	548.55	7.35	GM22D	T	24.64	23.29	1.35	547.67	6.47	29.93	GM22D		22.94		0.00	548.19	6.99
GM23D		22.42		0.00	548.44	12.42	GM23D	T	23.29	23.19	0.10	547.66	11.64	34.84	GM23D		22.62		0.00	548.24	12.22
GM24S	B	19.20	18.65	0.55	551.57	3.38	GM24S	B	20.33	19.60	0.73	550.60	2.41	22.10	GM24S	EB	20.31	19.91	0.40	550.33	2.14
GM24D	EB	24.90	22.45	2.45	548.55	6.34	GM24D	B	24.96	23.25	1.71	547.85	5.64	29.10	GM24D	EB	24.06	22.87	1.19	548.29	6.08
GM25D	B	25.30	22.30	3.00	549.21	6.91	GM25D	EB	25.11	23.86	1.25	547.86	5.56	29.58	GM25D	EB	23.95		0.00	547.93	5.63
GM28S	T	17.67	16.86	0.81	553.77	4.89	GM28S	T	18.70	17.87	0.83	552.76	3.88	21.85	GM28S	B	18.89	18.09	0.80	552.54	3.66
GM28D	T	22.40	21.98	0.42	548.81	7.92	GM28D		22.85		0.00	547.99	7.10	29.95	GM28D		22.37		0.00	548.47	7.58
GM29S		17.77		0.00	553.39	4.25	GM29S		18.41		0.00	552.75	3.61	22.02	GM29S	B	19.32	18.64	0.68	552.44	3.29
GM31	T	22.84	22.56	0.28	548.70	10.65	GM31	T	23.69	23.38	0.31	547.87	9.82	33.24	GM31	T	23.09	22.86	0.23	548.40	10.35
GM32		22.58		0.00	548.44	12.43	GM32	T	23.97	23.35	0.62	547.59	11.58	35.01	GM32	T	23.32	22.77	0.55	548.18	12.17
RW4		22.33		0.00	548.62	10.42	RW4		23.17	23.16	0.01	547.79	9.59	32.75	RW4	T	22.78	22.77	0.01	548.18	9.98
RW5	T	22.35	22.30	0.05	548.74	10.24	RW5		23.13	23.12	0.01	547.93	9.43	32.55	RW5		22.62		0.00	548.43	9.93
RW6	T	22.60	22.30	0.30	548.61	9.41	RW6		23.25		0.00	547.70	8.50	31.75	RW6		22.74		0.00	548.21	9.01
RW7		22.37		0.00	548.58	10.68	RW7	T	23.40	23.30	0.10	547.64	9.74	33.05	RW7	T	22.72		0.00	548.23	10.33
C2 *		18.75		0.00	552.43	2.35	C2 *		19.82		0.00	551.36	1.28	21.10	C2 *		20.01		0.00	551.17	1.09
C3 *	B	14.47	14.34	0.13	553.09	5.89	C3 *	B	16.02	15.91	0.11	551.53	4.33	20.25	C3 *	B	16.37	16.24	0.13	551.19	3.99
D1 *		17.27		0.00	553.79	2.94	D1 *		18.15		0.00	552.91	2.06	20.21	D1 *		18.54		0.00	552.52	1.67
G3 *		21.95		0.00	549.41	11.11	G3 *		23.07		0.00	548.29	9.99	33.06	G3 *		22.79		0.00	548.57	10.27
I1		22.57		0.00	548.27	11.74	I1	T	24.28	22.92	1.36	547.75	11.22	34.31	I1	B	23.79	22.42	1.37	548.25	11.72
J2 *	B	16.99	16.57	0.42	549.87	11.77	J2 *	B	17.90	17.61	0.29	548.84	10.74	28.39	J2 *	B	17.70	17.41	0.29	549.04	10.94

* = new 4" wells installed over old 2" blocked wells

= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

EB= extended bottom skimmer

Delta
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November 18, 1998

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: PROJECT STATUS REPORT
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Summary of Work Performed during October/November 1998

- Conducted site visits on October 13, and November 5, 1998, to evaluate system operation.
- During the October site visit converted two tidal skimmers to extended bottom skimmers to improve product collection.
- Cleaned all the hydrophobic skimmer screens and soaked them in diesel to reduce water infiltration into the screens.
- Contacted the system by modem to monitor system operation.
- Coordinated additional site visits by Enviromark to collect system operation data.

Gallons of Oil Recovered

The volume of product recovered from mid-July 1997 through November 2, 1998, is shown on the attached graph.

The storage tank was emptied of oil and water on October 23, 1998. Since then, 25 gallons of product has accumulated in the tank. Product collection has increased over the last several months as the ground water elevation appears to have stabilized.

Monthly Operation Summary, Problems Encountered and Adjustments

The attached "Skimming Wells" table presents a monthly summary of water levels, product thickness, and the status and type of skimming pump installed in the wells. Ground water levels have decreased and product thickness or presence has increased. Product collection appears to increase during decreasing or stable water elevations. During the November visit, five of the recovery wells showed a decrease in product thickness from the previous measurements, product thickness in one was unchanged and in three product increased..

Work Schedule for November/December 1998

- Continue monthly site visits to collect system operation and ground water monitoring data, adjust skimmer depths as needed, and perform system maintenance.
- Remove product boom from the slough and store for the winter.

If you have any questions, please call me at (651) 697-5229.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Gary Schroeher
Project Manager

GS/gdo

Attachments

cc: Mr. Jim Cunningham - BNSF, 80 - 44th Avenue NE, Minneapolis, MN 55421-2559
Mr. Jack Shih - Navistar, 455 North Cityfront Plaza Drive, Chicago, IL 60611

Sylvan Slough- BNSF/Navistar
Rock Island, IL

SKIMMIMG WELLS

Delta Environmental Consultants
Proj. No A097-130

	9/14/98						10/13/98							11/2/98						
Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)	Well Depth from TOC (ft)	Well No.	T/B	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thickness	Corrected Water Elevation	Fluid in Well (ft)
GM22D	T	24.64	23.29	1.35	547.67	6.47	GM22D		22.94		0.00	548.19	6.99	29.93	GM22D		21.66		0.00	549.47	8.27
GM23D	T	23.29	23.19	0.10	547.66	11.64	GM23D		22.62		0.00	548.24	12.22	34.84	GM23D	EB	21.52	21.44	0.08	549.41	13.39
GM24S	B	20.33	19.60	0.73	550.60	2.41	GM24S	EB	20.31	19.91	0.40	550.33	2.14	22.10	GM24S		19.13		0.00	551.16	2.97
GM24D	B	24.96	23.25	1.71	547.85	5.64	GM24D	EB	24.06	22.87	1.19	548.29	6.08	29.10	GM24D	EB	22.38	21.72	0.66	549.51	7.30
GM25D	EB	25.11	23.86	1.25	547.86	5.56	GM25D	EB	23.95		0.00	547.93	5.63	29.58	GM25D	EB	24.71	22.38	2.33	549.21	6.91
GM28S	T	18.70	17.87	0.83	552.76	3.88	GM28S	B	18.89	18.09	0.80	552.54	3.66	21.85	GM28S		17.41		0.00	553.32	4.44
GM28D		22.85		0.00	547.99	7.10	GM28D		22.37		0.00	548.47	7.58	29.95	GM28D		21.11		0.00	549.73	8.84
GM29S		18.41		0.00	552.75	3.61	GM29S	B	19.32	18.64	0.68	552.44	3.29	22.02	GM29S		18.09		0.00	553.07	3.93
GM31	T	23.69	23.38	0.31	547.87	9.82	GM31	T	23.09	22.86	0.23	548.40	10.35	33.24	GM31	EB	21.85	21.61	0.24	549.65	11.60
GM32	T	23.97	23.35	0.62	547.59	11.58	GM32	T	23.32	22.77	0.55	548.18	12.17	35.01	GM32		21.57		0.00	549.45	13.44
RW4		23.17	23.16	0.01	547.79	9.59	RW4	T	22.78	22.77	0.01	548.18	9.98	32.75	RW4		21.60		0.00	549.35	11.15
RW5		23.13	23.12	0.01	547.93	9.43	RW5		22.62		0.00	548.43	9.93	32.55	RW5	T	23.14	21.16	1.98	549.64	11.14
RW6		23.25		0.00	547.70	8.50	RW6		22.74		0.00	548.21	9.01	31.75	RW6	T	21.57	21.50	0.07	549.44	10.24
RW7	T	23.40	23.30	0.10	547.64	9.74	RW7	T	22.72		0.00	548.23	10.33	33.05	RW7		21.54	21.53	0.01	549.42	11.52
C2 *		19.82		0.00	551.36	1.28	C2 *		20.01		0.00	551.17	1.09	21.10	C2 *		19.14		0.00	552.04	1.96
C3 *	B	16.02	15.91	0.11	551.53	4.33	C3 *	B	16.37	16.24	0.13	551.19	3.99	20.25	C3 *	B	14.72	14.68	0.04	552.77	5.56
D1 *		18.15		0.00	552.91	2.06	D1 *		18.54		0.00	552.52	1.67	20.21	D1 *		17.64		0.00	553.42	2.57
G3 *		23.07		0.00	548.29	9.99	G3 *		22.79		0.00	548.57	10.27	33.06	G3 *		21.33		0.00	550.03	11.73
I1	T	24.28	22.92	1.36	547.75	11.22	I1	B	23.79	22.42	1.37	548.25	11.72	34.31	I1	B	22.55	21.50	1.05	549.21	12.68
J2 *	B	17.90	17.61	0.29	548.84	10.74	J2 *	B	17.70	17.41	0.29	549.04	10.94	28.39	J2 *	B	16.26	15.85	0.41	550.59	12.49

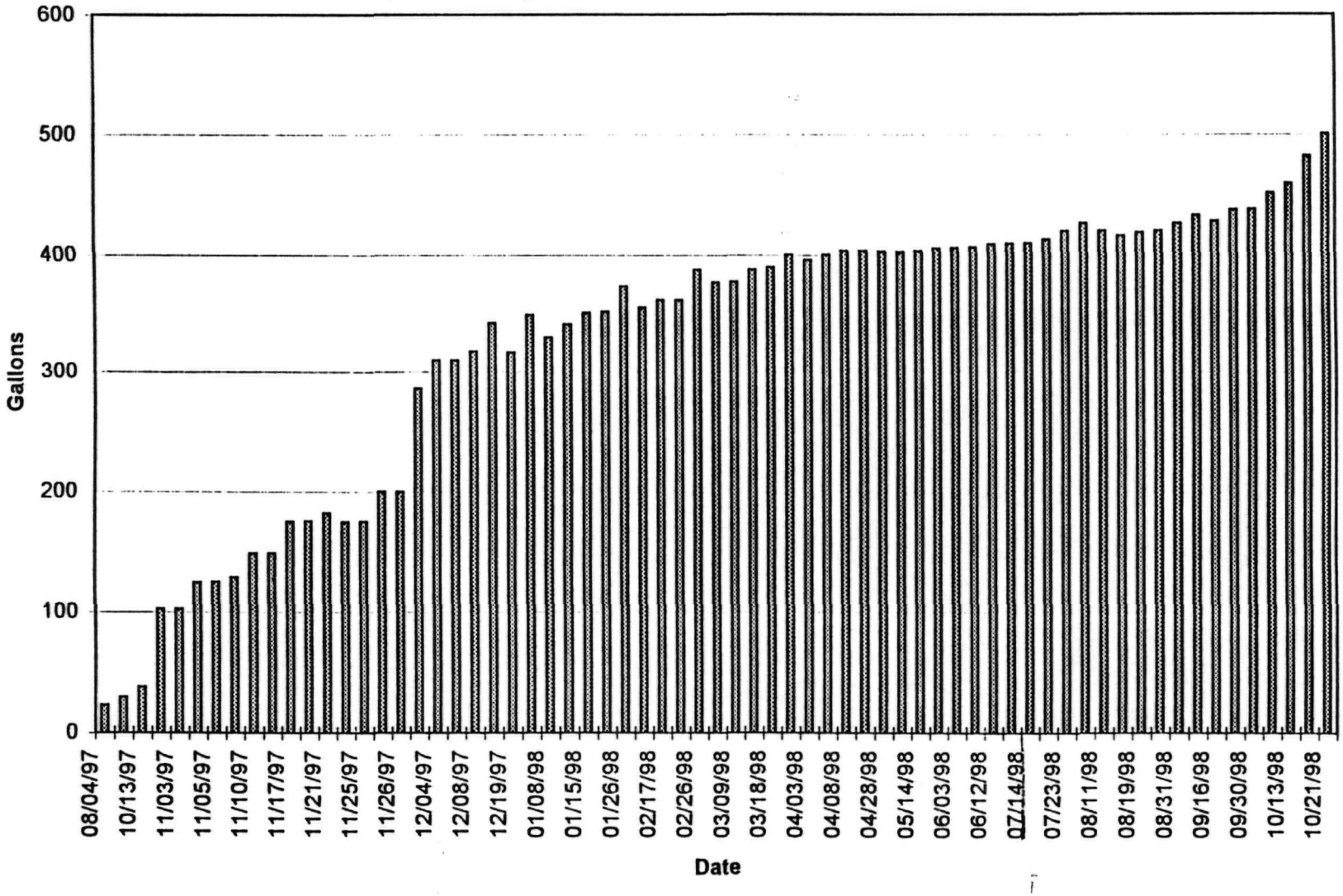
* = new 4" wells installed over old 2" blocked wells

= wells with operating skimmers after visit

T = tidal skimmer

B = bottom skimmer

Cumulative Product Recovery Since mid-July 1997
Adjusted for Tank Product Fluctuations
Sylvan Slough Removal Action Site, Rock Island, Illinois



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